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CREATING ORDER AMIDST FOOD ECO-LABEL CHAOS

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I. INTRODUCTION

Eco-labels, certifications, and seals of approval serve a variety of functions including communicating to businesses and consumers the environmental attributes of a particular product and incentivizing improvements in production. Eco-labels also provide a basis for companies to set measurable sustainability goals for sourcing, improvements, and transparency. As they gain greater traction in the marketplace, however, there has been a massive proliferation of labels, certifications, and green seals of approval. This has led to consumer confusion, inaccurate and misleading claims, and inconsistent standards.¹ A 2009 survey identified about 600 labels that denote some definition of “environmentally friendly” worldwide, including more than 80 on products sold in the United States (see Figure 1 below).² The U.S. alone has at least 19 eco-labels and environmental certifications in the food context.³ Consumer demand for eco-labeled food products has grown in conjunction with knowledge about pesticides and the potential ill effects from consumption, as well as consumer concerns over deforestation,

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2. Id.
biodiversity, and fair labor. These concerns have expanded the scope of eco-labels from the initial health-based focus. This Article addresses this proliferation of environmental claims through labels and certifications in the food context—a trend many have argued is necessary to moving the U.S. national food system toward a sustainable future.

Figure 1: The Proliferation of Eco-Labels

The proliferation of eco-labels has led to concerns of “greenwashing,” and to a lack of transparency, clarity, and trust in labeling. This exacerbates consumer confusion and can lead to industry liability. Consumers also desire increased information about products and improved quality of that information. To ensure that eco-labels are high quality and successful, markets must be created, products meeting those standards must be available, and administrative and certification costs must be addressed.

4.  Id. at 29.
Food eco-labels include government sponsored labels (e.g., USDA Organic); first-party or self-declared claims (including claims such as “sustainable,” “all natural,” or “responsibly sourced”); and labels and seals of approval derived from independent third-party certifications (e.g., the Marine Stewardship Council seafood standard). Given the eco-labeling chaos on supermarket shelves, consumers are “growing weary,” thus, both government and private certifiers have sought out a greater role in the regulatory space. While consumers now face a plethora of labeling schemes and do not know which ones to trust, producers must weigh maximizing their ability to compete in the eco-friendly sector against the potential liabilities that come with making green marketing claims and the cost of environmental certification.9

This Article attempts to find order amidst the chaos of food eco-labels. Part II explores three basic types of eco-labels for food: first-party, third-party, and those created and/or required by the federal and state governments. Part III discusses government regulation and restrictions on labeling. Part IV addresses both sides of the issue by (i) offering proposals for regulatory reform in order to improve the clarity, consistency, and credibility of green claims for food products; and (ii) giving suggestions to the industry to promote more transparency, accountability, and meaning among green marketing claims.

II. ECO-LABELING

Not all food eco-labels are created equal. Some are government-sponsored and/or required (e.g., USDA Organic, country-of-origin labeling); others are self-declared or “first-party” (e.g., Whole Foods’ “Responsibly Grown” label); and some labels are derived from third-party independent certifications (e.g., Marine Stewardship Council seafood labels).

A. First-Party Labels

A major form of voluntary, privately-sponsored labeling consists of “self-declared” or “first-party” claims, some of which state a single attribute like “sustainable.” More recently, some labels have made


environmental claims based on a number of self-created standards. A self-declared environmental standard “is an environmental claim that is made—without independent third-party certification—by manufacturers, importers, distributors, retailers, or anyone else likely to benefit from such a claim.”10 The proliferation of self-declared eco-labeling schemes has caused widespread consumer confusion and skepticism over the veracity of environmental claims. This has lead many manufacturers and retailers to turn to independent, third-party entities to certify that environmental product claims are valid.

How businesses define the adjectives used on first-party labels varies greatly, and the accuracy of these claims may be questionable. The increase in unverifiable and non-third-party certified eco-labels can create confusion among consumers. It can also undermine the value of well-intentioned labeling schemes that seek to highlight more environmentally friendly options and provide models for sustainability. As retailers contemplate the development of their own unique eco-labels, it is important that they understand the legal obligations, regulatory hurdles, and potential liabilities associated with self-declared eco-labeling (discussed below in Part III).

B. Third-Party Standards and Certifications

The most widely adopted food label in the U.S. is the USDA Organic label, which has certified 35,000 products and companies.11 Other prominent labels include the Rainforest Alliance Sustainable Agricultural Network, with 23,929 certifications;12 Fairtrade, with 5,246 products and company certifications; and the Marine Stewardship Council,13 with 2,643 product certifications.14 “The

12. Id. at 30. “The Rainforest Alliance certification is a conservation tool whereby an independent, third party awards a seal of approval guaranteeing consumers that the products they are buying are the result of practices carried out according to a specific set of criteria balancing ecological, economic, and social considerations. The Sustainable Agriculture Network (SAN), the global parent, awards the North America-based Rainforest Alliance Certified ecolabel to farms, not to companies or products.” Id. at 31.
13. Id. at 30. “Unilever and the World Wildlife Fund partnered in 1997 to create a marine-based certification. Today, the certification is known as MSC certification or the Marine Stewardship Council (MSC). The organization is a nonprofit organization that has developed a global environmental standard for sustainable fishing. Some of the standards measured by MSC include the maintenance of a sustainable population level and the minimization of environmental impacts. Well-managed fisheries that are independently certified as meeting these standards may use the blue MSC ecolabel on seafood from their fishery.” Id. at 32.
14. Id. at 30.
agricultural eco-labeling space has grown from a focus on the safety of consumable products to include a wider range of issues spanning environmental and social sectors.” 15 This Part describes two third-party certification labels/markets (organic food and seafood), as well as the challenges they face. 16


The past decade has seen both increased interest in food labeling and increased prominence of the organic market. 18 Under the Organic Foods Production Act of 1990 (OFPA) and the National Organic Program (NOP), the U.S. government creates production, handling, and labeling standards for organic agricultural products. 19 In the United States and abroad, environmental labeling for food is gaining wide interest. Organic food labeling in the United States has become the dominant environmental label, earning great cachet with consumers. Additionally, the country of origin label (discussed below)—created originally for consumer protection reasons—can serve to some degree as a proxy for information about “food miles.” 20

The organic food market is flourishing. People want chemical-free foods for personal health and environmental reasons. In light of the economic benefits of organic production—organic products generally sell for much more than conventional ones—the modern organic production and distribution system is now dominated by large-scale “industrial organic” or “big organic” producers. With large scale production, even organic, comes increased greenhouse gas emissions and questionable agricultural methods. Yet organic production does yield food produced and processed in a chemical free environment, which is in high demand. Organic food has almost quadrupled its market share in the last decade, and sales of organic food sales have grown from $1 billion in 1990 to over $20 billion

15. Id. at 33.
16. There are many other such labels like Demeter’s Biodynamic and Certified Humane.
17. This section on U.S.D.A. Organics and the latter section on COOL labeling relies on Jason J. Czarnezki & Elena M. Mihaly, The Food Statutes, in FOOD, AGRICULTURE AND ENVIRONMENTAL LAW 223 (Mary Jane Angelo, Jason J. Czarnezki & William S. Eubanks II eds., 2013) [hereinafter The Food Statutes].
20. Future of Food, supra note 5, at 18.
today.21 None of this might have happened without a regulatory model creating a value-added food label like “organic.”

Individuals buy organic products to promote sustainable and chemical-free agriculture, as well as to keep their bodies free of synthetics and pesticides. The organic standard “emphasizes the use of renewable sources, land management that maintains natural soil fertility, water conservation, rich biodiversity, and long term sustainability.”22

OFPA establishes a national organic certification program where agricultural products may be labeled as organic if produced and handled without the use of synthetic substances. The program prohibits using synthetic fertilizers, administering growth hormones and antibiotics in livestock,23 and adding synthetic ingredients during processing.24 However, exceptions exist, and some non-agricultural products and synthetics can be used on organic produce if they are on the National List.25 Such products include waxes (carnauba and wood rosin) on organic fruit and fruit products, ethylene for postharvest ripening of tropical fruit and citrus degreening, and citric acid and ascorbic acid for fresh-cut fruits.26 Chlorine, the most commonly used synthetic for sanitation of fruit and vegetable surfaces, is also on the National List.27

In addition to agricultural products and synthetics, agricultural practices are also regulated under the OFPA. Farmers must follow an organic plan approved by an accredited certifying agent as well as the producer and handler of the product.28


24. 7 U.S.C. §§ 6508(b)(1); 6509(c)(3); 6510(a)(1)(2012). *See also* Plotto & Narcisco, supra note 22, at 287 (citing 7 C.F.R. § 205.105 (2006)) (“Food must be produced without synthetic chemicals, except for those specifically allowed by regulations, and without substances (nonsynthetic and nonagricultural) prohibited by regulations, including no sewage sludge, ionizing radiation or bioengineering . . . .”).


27. *Id.* at 290 (citing 7 C.F.R. § 205.605(b) (2006)).

process-based standards, it does not create chemical residue standards or require tests for actual chemical content in food, and also does not assess overall land use practices. Thus, “certified organic” labeling informs consumers about the food production process. While organic foods are likely to have fewer chemicals than their conventional counterparts, organic labeling does not directly describe food quality or indicate a lack of land degradation.²⁹

The NOP also has detailed record-keeping requirements to meet the production process-based standards of the OFPA.³⁰ Due to the record-keeping requirements and detailed standards, third-party certifiers work with state and federal governments to oversee organic certification.

Despite meager funding and a small staff, the National Organic Program operates by accrediting nearly 100 third-party certifying agencies, who in turn provide the oversight required to certify farms and businesses as organic. Since standards cover the materials and processes used for both growing and processing food, not only does NOP regulate which pesticides a farmer may use, it also specifies which cleaning solution a processor may use to clean his equipment.³¹

Small farmers who gross less than $5,000 annually and only sell directly to consumers (e.g., via farmers markets and family farm stands) can avoid the certification process by simply signing a declaration of compliance stating that they comply with organic standards.³² However, if these farmers sell any of their products through conventional distribution channels, they may only use the

²⁹. See Michelle T. Friedland, You Call That Organic?–The USDA’s Misleading Food Regulations, 13 N.Y.U. ENVTL. L.J. 379, 384–87 (2005) (establishing that the NOP is process-based rather than product-based). However, “[b]ecause food produced in accordance with the NOP regulations will not be intentionally sprayed with pesticides or intentionally grown or raised using genetically engineered seed or other inputs, the likelihood of the presence of pesticide residue or genetically engineered content will clearly be lower than in foods intentionally produced with pesticides and genetic engineering techniques. But organic food will not be free of such contamination. Evidence clearly indicates that both pesticides and genetically engineered plant materials often drift beyond their intended applications, and organic food, like any food, may be accidentally contaminated.” Id. at 389–99.

³⁰. Plotto & Narciso, supra note 22, at 287–88 (citing 7 C.F.R. §§ 205.103, 205.201 (2006)).

³¹. JILL RICHARDSON, RECIPE FOR AMERICA: WHY OUR FOOD SYSTEM IS BROKEN AND WHAT WE CAN DO TO FIX IT 63 (2009).

term “organic,” and may not use the term “certified organic” or the USDA organic label on products without also obtaining official certification.\(^{33}\) The certification process can be expensive and time-consuming.\(^{34}\)

There is a concern that small farmers may have trouble coming up with the funds to receive organic certification, and may also lack the resources to fully promote and market their chemical-free and sustainably grown products.\(^{35}\) In recognition of the costs of organic certification for small farmers, sliding scales for payment and subsidization are the norm.\(^{36}\) Organic certification fees, based on total sales, are usually below $1,000, except for large processors with far greater sales.\(^{37}\) Costs are actually 75\% less, after government reimbursement, if a state participates in the federal cost-share assistance program discussed below. But, perhaps due to sliding scale differences (and thus fee differences), it has been claimed that organic certifiers largely ignore economic issues pertaining to small-scale farmers, and place a greater emphasis on enlisting larger producers.\(^{38}\)

The Agricultural Management Assistance Organic Certification Cost Share Program, established in 2001, authorizes cost share assistance to producers of organic agricultural products in a number of states. This program received $1.45 million in funding in 2010.\(^{39}\) The National Organic Certification Cost Share Program, re-established as a part of the 2008 Farm Bill, authorizes cost share assistance to producers and handlers of organic agricultural products in each state. Nearly every state participates. The states will reimburse each eligible producer or handler up to 75\% of its organic

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33. Id.
34. Id.
35. RICHARDSON, supra note 31, at 63–64.
certification costs, not to exceed $750.\textsuperscript{40} In fiscal year 2008, Congress allocated $22 million—on a one-time basis—for states under this program, which is available until the funds are exhausted.\textsuperscript{41} Thus, at least in the short term, significant cost assistance exists. In addition to making organic certification more affordable for small farmers, states are also providing property tax rebates for farmers who convert from conventional to organic farming practices, and attempting to lower the tax burden on small farmers.\textsuperscript{42}

Even if the costs of organic certification are expensive, though, they are not prohibitive. The real barriers to entry may be the costs of monitoring and record-keeping. For example, applicants for certification must keep accurate post-certification records for five years concerning the production, harvesting, and handling of agricultural products that are to be sold as organic.\textsuperscript{43}

Previously, some expressed concerns that organic standards would somehow limit imports and adversely affect the global food market.\textsuperscript{44} However, the U.S. National Organic Program (NOP) streamlined the certification process for international as well as domestic trade when it was implemented in 2002. Organic farmers and handlers anywhere in the world are permitted to export organic products to

\begin{footnotes}
41. U.S.D.A., supra note 39, at 1. “To prevent duplicate assistance payments, producers participating in the AMA program are not eligible to participate in the producer portion of the National program.” Id.
42. See, e.g., Woodbury County Organics Conversion Policy, 2005 http://www.woodburyiowa.com/attachments/article/42/Organics%20Conversion%20Policy.pdf (“Woodbury County will grant up to $50,000 each year in real property tax rebate incentives for farms that convert from ‘conventional’ farming techniques that use pesticides to ‘organic’ farming that complies with the U.S.D.A. ‘National Organic Program’ Standards and Regulations”); H.B. 1350, 144th Gen. Assem., Reg. Sess. (Ga. 1998) (amending Code Section 48-5-41 of the Official Code of Georgia Annotated, relating to exemptions from ad valorem taxation, so as to provide for an exemption for fruit or nut trees grown in this state and remaining in the possession of a producer of fruit or nuts, trees grown in this state for sale as Christmas trees and remaining in the possession of the producer, etc.).
\end{footnotes}
the United States if they meet NOP standards, along with other regulatory standards, and are certified by a public or private organic certification body with USDA accreditation. In 2007, USDA accredited groups certified 27,000 producers and handlers worldwide to the U.S. organic standard, with approximately 16,000 in the United States and 11,000 in over 100 foreign countries. Farmers and handlers certified to NOP standards are most numerous in Canada, Italy, Turkey, China, and Mexico.\(^{45}\)

OFPA monopolizes the use of the term “organic,” requiring all products labeled as “organic” to be certified through government approved organizations that comply with all OFPA regulations under NOP.\(^{46}\) Under one view, it is effective to have a single government label bringing singular meaning to a word developing significant cachet in food markets.

The OFPA, from the point of view of regulatory design and administrative law, was strikingly innovative . . . . The OFPA is a marketing-oriented statute designed to regularize what was at the time a potentially confusing Babel of competing standards with an official federal “organic” label. Not only was a federal label thought useful in promoting consumer confidence in the growing organic industry within the United States, but it was also viewed as helpful in facilitating trade in “a potentially lucrative international organic market.”\(^{47}\)

Despite this approach, consumer confusion remains regarding the meaning of “organic.”

What counts as organic? For many, the organic label means healthy, environmentally friendly, safe, and pesticide-free. While in some cases these characteristics are true, none are elements of the term’s legal definitions. Moreover, not all organics are created equally. The NOP created under the OFPA establishes a four-tiered labeling system for organic foods.\(^{48}\)

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45. Greene et al., supra note 25, at 8.
46. 7 U.S.C § 6505(a)(1)(A) (2012).
First, a product can be labeled “100 percent organic” and carry the USDA and private certifying agent seals if it contains 100% organically produced ingredients, as defined by OFPA (e.g., without synthetic substances). Second, a product must contain at least 95% organic ingredients to be labeled simply “organic” and use the USDA and private certifying agent seals. Third, a product with at least 70% organically produced ingredients (or perhaps better stated, with only 70% organic ingredients) can be labeled “made with organic ingredients” and carry the seal of a private certifying agent. For products containing less than 70% organic ingredients, organic ingredients may be listed on the label, but neither the word “organic” nor any seal can be used. Thus, consumers of organic products should look for the USDA seal over the sole seal of other certifying agents, including state governments, because it guarantees at least 95% organic content. Although individual U.S. states have the right to seek approval of stricter standards, to date, none have exercised this right.

Two key and related questions arise in determining the effectiveness of organic labeling. First, when a consumer sees the word “organic” on a label, are the different meanings of organic clear to the average consumer? And second, does “certified organic” mean what consumers think it means? Potentially adding to the confusion, agribusiness has sought watered-down definitions of “organic” so that

Table 1: Categories of USDA Organic Foods

<table>
<thead>
<tr>
<th>Content of Organic Ingredients</th>
<th>Organic Seal?</th>
<th>Permitted Label Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>Yes</td>
<td>“100% Organic”</td>
</tr>
<tr>
<td>95%-99%</td>
<td>Yes</td>
<td>“Organic”</td>
</tr>
<tr>
<td>70%-94%</td>
<td>No</td>
<td>“Made with Organic Ingredients”</td>
</tr>
<tr>
<td>69% or less</td>
<td>No</td>
<td>Can only list organic ingredients</td>
</tr>
</tbody>
</table>

49. 7 C.F.R. § 205.302 (calculating the percentage of organically produced ingredients by weight or fluid volume).
50. 7 C.F.R. §§ 205.301(a), 205.303 (2014). OFPA defines “synthetic” as “a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources, except that such term shall not apply to substances created by natural occurring biological processes.” 7 U.S.C. § 6502(12) (2012); 7 C.F.R. § 205.2 (2014).
51. 7 C.F.R. §§ 205.301(b), 205.303 (2014).
52. 7 C.F.R. § 205.301(c) (2014).
53. 7 C.F.R. § 205.301(d) (2014).
it can reap the economic benefits of the growing popularity of organic products. For example, the Secretary of Agriculture—lobbied by industry to loosen the standard for organic—created rules allowing non-organic feed to be used in dairy cattle herds that were transitioning to an organic diet, and permitting the use of synthetic substances in the handling of products labeled as organic.  

The U.S. Court of Appeals for the First Circuit in *Harvey v. Veneman* declared these lobbied rules in contravention of the plain language of the OFPA. 55 Despite this, producers can use chemicals in the production and handling stages if the synthetics are not harmful and are necessary because no natural substitute exists. 56 For example, carbon dioxide and ethylene—as previously mentioned—can be used in post-harvest activities like ripening. 57 That said, and despite attempts to the contrary, current NOP rules continue to ban genetically modified organisms, sewage sludge, and irradiation in certified organic foods. 58 NOP rules also exclude poultry, eggs, or milk from animals raised with antibiotics or growth hormones.

2. Seafood

With regards to seafood, the United Nations’ Food and Agriculture Organization (FAO) estimates that there are currently over 400 standards, certifications, and labels related to wild fisheries and aquaculture. While not a standard-setting body themselves, the FAO published sets of guidelines for seafood certifications and eco-labeling schemes that provide minimum substantive and procedural criteria, which certification schemes must incorporate to be deemed credible. These criteria are encapsulated in the *Code of Conduct for Responsible Fisheries Management*; the *Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries, 2009*; *Guidelines for the Ecolabelling of Fish and Fishery Products from Inland Capture Fisheries, 2011*; and the *Technical Guidelines for Aquaculture Certification, 2011*. 59 It is important to

55. *Harvey v. Veneman*, 396 F.3d 28, 39, 44 (1st Cir. 2005).
57. 7 C.F.R. § 205.605(b) (2014).
58. Friedland, *supra* note 29, at 384, 388. The regulations also prohibit most uses of ionizing radiation, the application of sewage sludge as fertilizer, and the use of drugs or hormones to promote growth in livestock. 7 C.F.R. §§ 205.105(f)–(g), 205.237(b)(1) (2014).
59. *FISHERIES & AQUACULTURE DEP’T, FOOD & AGRIC. ORG. OF THE UNITED
note that the Code of Conduct and guidelines were not designed to serve as independent certification standards since they do not meet the FAO’s own definition of a “standard for certification.” Additionally, they lack the measurable performance indicators required for consistent and meaningful performance-based certification. Nevertheless, the guidelines have become the internationally accepted baseline for credible seafood certifications.60

For many, the FAO guidelines are regarded as a floor and not a ceiling.61 In other words, certifications should look to exceed these criteria to create standards that drive meaningful improvements over current performance levels. That said, the recent emergence of standards claiming to be “FAO-based” or “FAO-compliant” has prompted some concern and a movement to evaluate the veracity of these claims. In particular, concerns have been raised that “FAO-based” schemes do not meet all of FAO’s criteria for credible certification.62 Additionally, other certification schemes have claimed to be fully consistent with the FAO’s guidelines.63 Without independent benchmarking, however, these claims may not be accurate. Indeed, any certification claiming to be consistent with the FAO guidelines must, at a minimum, address the guidelines in their entirety. Within the guidelines, there are several elements that are particularly critical and form the core of any credible certification scheme. These elements require that a standard be transparent and multi-stakeholder;64 include relevant, measurable, and objective criteria;65 maintain impartiality and independence;66 incorporate processes for complaints and appeals;67 and include mechanisms to


60. MARINE FISHERIES, supra note 59, at princ. 2.14; AQUACULTURE ¶¶ 13–16.
62. Id. at 1.
63. Id. at 2.
64. MARINE FISHERIES, supra note 59, at princ. 2.4, 45, 54; AQUACULTURE ¶ 76.
65. MARINE FISHERIES, supra note 59, at princ. 141–43; AQUACULTURE ¶¶ 161–66.
66. MARINE FISHERIES, supra note 59, at princ. 73, 116; AQUACULTURE ¶ 17d.
67. MARINE FISHERIES, supra note 59, at princ. 82–84, 134, 147–48; AQUACULTURE ¶ 167.
facilitate learning and continual improvement.  

C. Mandatory Labeling

Both federal and state governments have mandatory labeling requirements for food. For example, at the federal level, the United States has enacted country of origin labeling (COOL) legislation that requires retailers to inform consumers about the source of certain foods. At the state level, the State of Vermont has passed GMO labeling legislation—the first of its kind. In addition, a mandatory federal seafood certification process has been proposed.

1. Country of Origin Labeling

Country of origin labeling (COOL) requires that a food product notify consumers of its source location. While the underlying rationales for COOL in the United States are improving the safety of foreign goods and economic protectionism for domestic products, COOL also allows consumers to choose food products that did not travel so far to market and thus may have a lower carbon footprint (i.e., lower food miles). Also, COOL may provide implicit information to buyers. Educated consumers may be able to infer, for example, whether produce was grown out of season in a greenhouse or came from an unsustainable or depleted fishery.

COOL requirements were enacted in the United States under the Farm Security and Rural Investment Act of 2002 (better known as the 2002 Farm Bill) and its implementing regulations. COOL was then amended under the Food, Conservation and Energy Act of 2008 (the 2008 Farm Bill).

Despite objections to COOL by powerful producers and retailers, the idea received much support from consumer and product safety organizations. Under the American COOL law, retailers, such as grocery stores, supermarkets, and club warehouse stores, must provide customers with information regarding the source of certain

68. MARINE FISHERIES, supra note 59, at princ. 22, 27, 40; AQUACULTURE ¶¶ 18, 40.
73. Chang, supra note 69, at 702.
foods. Food products subject to the legislation currently include “covered commodities,” such as cut and ground meats (beef, veal, pork, lamb, goat, and chicken); wild and farm-raised fish and shellfish; fresh and frozen fruits and vegetables; nuts (peanuts, pecans, and macadamia nuts); and ginseng.

There are four labeling categories to indicate a product’s source: (1) United States origin exclusively; (2) origin and production entirely outside the United States; (3) products of the United States and non-United States that have combined origin; and (4) products of blended origin. Difficulties arise in designating the country of origin because many food products today are produced in multiple countries, particularly meats. For example, beef might come from a cow that was born and fed in Canada, but slaughtered and processed in the United States. Similarly, products from several countries often are mixed, such as for ground beef. For “covered” red meats and chicken, the COOL law:

- Permits the U.S. origin label to be used only on items from animals that were exclusively born, raised, and slaughtered in the United States;
- Permits meat or chicken with multiple countries of origin to be labeled as being from all of the countries in which the animal may have been born, raised, or slaughtered;
- Requires meat or chicken from animals imported for immediate U.S. slaughter to be labeled as from both the country the animal came from and the United States;
- Requires products from animals not born, raised, or slaughtered in the United States to be labeled with their correct country(ies) of origin; and
- Requires that labels for ground meat and chicken products list all countries of origin, or all “reasonably possible” countries of origin.

These meat-labeling requirements have proven to be quite controversial because of the steps that U.S. feeding operations and

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75. Id.; 7 C.F.R. pt. 60.105, 65.135 (2014).
packing plants need to adopt to segregate, hold, and slaughter foreign-origin livestock from U.S. livestock.\textsuperscript{78} The “catch-all” label (see second bullet, above) was a favorite of many meat processors and retailers, even on products that would qualify for the U.S.-only label, because it was the easiest requirement to meet.\textsuperscript{79} In August 2008, after objections from COOL supporters that the label would be overused and thus undermine the intent of COOL—to distinguish between U.S. and non-U.S. meats—a final rule clarified the “multiple countries of origin” language.\textsuperscript{80} The rule stated that meats derived from both U.S. and non-U.S. origin animals may carry a mixed-origin claim (e.g., “Product of the U.S., Canada, and Mexico”), but that the mixed-origin label cannot be used if only U.S.-origin meat was produced on a production day.\textsuperscript{81}

To pacify continued concerns that the COOL label’s purpose was being evaded, Secretary of Agriculture Tom Vilsack asked industry representatives in a February 2009 letter to voluntarily provide additional information. He stated that:

Processors should voluntarily include information about what production step occurred in each country when multiple countries appear on the label. For example, animals born and raised in Country X and slaughtered in Country Y might be labeled as ‘Born and Raised in Country X and Slaughtered in Country Y.’\textsuperscript{82}

For perishable agricultural commodities—ginseng, peanuts, pecans, and macadamia nuts—retailers may only claim U.S. origin if they were exclusively produced in the United States.\textsuperscript{83} For farm-raised fish and shellfish, a U.S.-labeled product must be derived exclusively from fish or shellfish hatched, raised, harvested, and processed in the United States. Wild fish and shellfish must be derived exclusively from those either harvested in U.S. waters or by a U.S. flagged vessel, and processed in the United States or on a U.S.

\textsuperscript{78} JURENAS, supra note 77, at 6.
\textsuperscript{79} Id.
\textsuperscript{83} 7 C.F.R. § 65.300(g) (2014).
Also, labels must differentiate between wild and farm-raised seafood.

2. Vermont GMO Labeling

In May 2014, Vermont Governor Peter Shumlin signed into law an “act relating to the labeling of food produced with genetic engineering.”

Supported by a coalition of public interest groups and businesses, Vermont’s new law—which will go into effect on July 1, 2016—serves as a model of mandatory eco-labeling in two different ways. First, it requires that food sold in retail stores in Vermont be labeled “as produced entirely or in part from genetic engineering” if it is “entirely or partially produced with genetic engineering.”

Second, the law prohibits foods that are defined as “produced with genetic engineering” from bearing the label “natural” or a variant thereof. Vermont’s law essentially serves as a mandatory reverse eco-label, allowing consumers to identify and potentially avoid foods produced with genetic engineering.

The advantage of Vermont’s labeling scheme is that unlike most eco-labeling, the label reduces liability and cost rather than increasing it. For instance, if the manufacturer of a processed food wishes to label the food as “GMO Free,” it must bear the costs not only of more expensive ingredients, but also of third-party certification, and it must take on the risk of potential liabilities due to product contamination.

On the other hand, a producer of processed foods that either knows that some of its ingredients are produced with genetic engineering, or likely to be produced with genetic engineering, can simply include the required language on its packaging and comply with the law.

Proponents of the law claim that it serves the public’s “right to know” what is in its food. Vermont’s law is not without its critics, however. Shortly after Governor Shumlin signed the bill into law,}

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84. 7 C.F.R. 60.133 (2014).
85. 7 C.F.R. 60.200(d) (2014).
86. Several other states have passed similar laws but none have definite effective dates because they require “triggers”—their effective dates are connected with the passage of analogous laws in other states.
87. VT. STAT. ANN. tit. 9, § 3043(a)(2) (West 2016).
88. Id. § 3043(c).
industry trade groups sued the state, asserting that the law violated the U.S. Constitution.\textsuperscript{90} Their complaint argues that the law is preempted, that it violates the dormant Commerce Clause, and that it violates the First Amendment.\textsuperscript{91} Proponents counter that federal preemption does not apply because the federal regulation of genetically engineered foods, and food labeling, does not expressly preempt or occupy the field.\textsuperscript{92} This case is still pending. The Second Circuit Court of Appeals, upholding a similar Vermont law that required labels on products containing trace amounts of mercury, held that Vermont’s regulation of a product label did not violate the dormant Commerce Clause.\textsuperscript{93}

The most hotly debated question regarding Vermont’s new law is whether it unconstitutionally burdens commercial speech. Commentators differ on whether federal courts should apply the \textit{Central Hudson} test or the more deferential \textit{Zauderer} test.\textsuperscript{94} \textit{Central Hudson} applies an intermediate level of scrutiny\textsuperscript{95} to mandatory labels and requires that a labeling law advance a “substantial government interest.”\textsuperscript{96} \textit{Zauderer} applies when the purpose of a label is to alleviate “consumer confusion” and requires that the label serve a legitimate government interest.\textsuperscript{97} If Vermont’s labeling law survives scrutiny in federal court, the motivation to avoid the reputation-harming mandatory label could create a category of food that occupies a place between conventional and organic foods.

\textsuperscript{91} Id. at 55, 79, 85.
\textsuperscript{93} Nat’l Elec. Mfrs. Ass’n v. Sorrell, 272 F.3d 104 (2d Cir. 2001).
\textsuperscript{94} See Murphy et al., supra note 92, at 514–15 (explaining the court in \textit{Zauderer} set forth a more deferential test for disclosure requirements than for other forms of speech regulation).
\textsuperscript{95} Central Hudson Gas & Elec. Corp. v. Public Service Commission of New York, 447 U.S. 557, 573 (1980) (Blackmun, J., concurring) (“Under this four-part test a restraint on commercial communication . . . is subject to an intermediate level of scrutiny[,]” (internal quotations omitted)).
\textsuperscript{96} See \textit{Zauderer} v. Office of Disciplinary Counsel of Supreme Court of Ohio, 471 U.S. 626, 651, 658 (1985) (“[W]e have emphasized that because disclosure requirements trench much more narrowly on an advertiser’s interest than do flat prohibitions on speech, ‘warning[s] or disclaimer[s] might be appropriately required . . . in order to dissipate the possibility of consumer confusion or deception.’”) (quoting In re R.M.J., 455 U.S. 191, 201 (1982))); see generally Murphy et al., supra note 92; Laura Murphy, Kenneth Noga, & Mark Rose, \textit{Seeking Pure Fields: The Case Against Federal Preemption of State GMO Crop Bans}, 49 U.S.F. L. REV. (forthcoming 2015); \textit{Do Tell: The Case for Mandatory Labeling of GE Foods}, 28(2) ABA NATURAL RES. & ENV’T 14 (2013).
3. Proposed Federal Seafood Certification

While federal and state government can play an integral role to improve the credibility of green claims for food products, agency authority to regulate labels and claims is limited. There is also a notable distinction to be made between government-mandated labeling schemes that are intended to ensure a particular level of performance and/or provide greater clarity and transparency; and those aimed at the promotion and marketing of domestically produced products. Whether the latter presents a conflict with the mission of a particular agency is one of the primary issues at hand in an ongoing debate around two pending proposals to establish a federal sustainable seafood certification program.

In 2014, the Marine Fisheries Advisory Committee (MAFAC) submitted a formal recommendation to the National Oceanic and Atmospheric Administration (NOAA) to establish a national sustainable seafood certification program.98 Not long after, a Senate bill to reauthorize the Magnuson-Stevens Fishery Conservation and Management Act (MSA) was introduced and included a similar provision, authorizing NOAA to establish a seafood certification program.99 Arguably, these proposals were a reaction to the growing concern by some domestic producers that products certified by independent third parties (particularly imports) were gaining market traction and a competitive advantage over U.S. fisheries. For some U.S. producers, particularly those subject to federal management jurisdiction, these proposals raised significant concerns for a wide variety of stakeholders.100

Among the concerns highlighted by stakeholders was that the administration of a federal certification program falls outside the bounds of NOAA’s mission and presents a potential conflict of interest.101 NOAA is charged with stewardship of living marine resources in U.S. federal waters and plays a critical role in providing objective data about our nation’s fisheries. Undertaking the business of promoting and marketing seafood falls outside the bounds of

101. Id.
NOAA’s conservation and management mission, and could therefore undermine the agency’s ability to serve as a source of neutral and unbiased fisheries information.

A certification program that requires the same agency charged with sustainable management of marine resources to also distinguish between high-performing and low-performing fisheries poses an inherent conflict of interest. Indeed, as official stewards of the resource, NOAA Fisheries is ultimately accountable for any mismanagement. Designating a fishery as low-performing could imply failure by NOAA itself, creating a disincentive for the agency to call attention to non-compliant and/or underperforming fisheries given the potential for lawsuits or other reprisals. To ensure that NOAA remains true to its mission as marine resource stewards, and continues to be a neutral source for critical fisheries data and information, many feel that it should not play a role in the development and administration of a national seafood certification program.

Likewise, there may be international trade implications with this type of certification. If the United States sets a precedent by establishing a certification program for domestically harvested products, foreign markets might view this as protectionist. Foreign governments could respond with analogous certification programs that provide market advantages for their own products and disadvantage and/or limit opportunities for U.S. seafood exports, which account for billions of dollars annually and support thousands of American workers. Foreign certification programs could also include criteria that go beyond fisheries management, such as giving preference to products produced under local environmental, labor, and social-justice standards. This would only further complicate U.S. seafood trading opportunities.

Furthermore, the proposed federal seafood certification program does not comply with globally accepted standards for eco-labels. Neither the Senate proposal nor the MAFAC proposal are likely to meet the eco-labeling guidelines developed by the United Nations Food and Agriculture Organization (FAO) or the codes of good practice set by ISEAL, the well-respected global association for sustainability standards. These commonly accepted standards and guidelines for certification represent the threshold requirements for any credible certification program. Seafood buyers that rely on
certification to guide their purchasing decisions and communicate their sustainability commitments are unlikely to accept weaker standards. Absent alignment with the requirements established by the FAO and ISEAL, a federal certification program will not gain the market traction, recognition, or relevance that it seeks.

III. GOVERNMENT REGULATION OF FIRST- AND THIRD-PARTY LABELING

Product labels and advertising are regulated by consumer protection and anti-unfair competition laws by a number of governmental and extra-governmental actors on the federal and state levels. At the core of consumer protection and anti-unfair competition regulation is the Federal Trade Commission (FTC), which has the express authority to stop deceptive and mislabeled products by issuing cease and desist orders, the violation of which can lead to civil penalties.103

A. FTC Regulation

Congress authorized the Federal Trade Commission to regulate “[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce” in Section 5 of the FTC Act.104 To determine whether a label on a product, or a term used in advertising a product, is deceptive, the FTC applies the “reasonable consumer standard.”105 The essential question is: what would a reasonable consumer believe the label means? Applying this standard, the FTC regulates not only the express meaning of a given label or term used in advertising, but also anything that the label or term would imply to a reasonable consumer.

Generally, the FTC examines all marketing claims for five general requirements. The FTC requires (1) that all claims be substantiated, and (2) that comparative claims must state the basis for


103. Greenwashing, supra note 9, at 41.


comparison. The FTC forbids (1) overbroad and unqualified claims, (2) exaggerated claims, and (3) claims that use symbols or seals of approval that are not understood by the general public. The FTC has also articulated specific guidelines for endorsements and green marketing claims.

Excluded from the FTC’s enforcement of unfair and deceptive practices are claims that are defined as “puffery.” Whereas “a specific and measurable claim, capable of being proved false or of being reasonably interpreted as a statement of objective fact” is actionable, puffery can be either “an exaggerated, blustering, and boasting statement upon which no reasonable buyer would be justified in relying” or “a general claim of superiority over comparable products that is so vague that it can be understood as nothing more than a mere expression of opinion.”

In the early 1990s, the market for “environmentally friendly” or “green” products blossomed, and, along with it, came false green claims on product labels or in advertising. This phenomenon is known as “greenwashing.” In response to greenwashing, the FTC developed the Guides for the Use of Environmental Marketing Claims—the “Green Guides.” As the green marketplace evolved and research showed that specific claims confused or misled consumers, the FTC promulgated revised Green Guides. The current Green Guides include guidelines for general environmental claims as well as terms such as “recycled,” “renewable,” and “compostable,” as well as “free of” claims and “source reduction” claims. Notably, the Green Guides do not include guidance on the use of the terms “sustainable” or “natural.”

The Green Guides themselves are not binding law, but they do offer a picture of what the FTC considers to be unfair or deceptive in the field of green marketing. Any marketer that uses advertising or

107. Id. at 6–8.
111. See FTC Issues Revised “Green Guides”, F.T.C. (Oct. 1, 2012), http://www.ftc.gov/opa/2012/10/greenguides.shtm (“The Federal Trade Commission issued revised ‘Green Guides’ that are designed to help marketers ensure that the claims they make about the environmental attributes for their products are truthful and non-deceptive.”).
112. 16 C.F.R. § 260.7 (compostable), § 260.12 (recyclable), § 260.16 (renewable), § 260.17 (source reduction), § 260.9 (free-of claims).
labeling to highlight the ecological attributes of its product, packaging, or production techniques is well-advised to first analyze whether the claims comply with the Green Guides.

B. State “Mini-FTC” Laws

Federal law does not preempt states from enacting and enforcing their own consumer protection and anti-unfair competition laws, generally known as “mini FTC” laws. These laws enable state Attorneys General to prosecute unfair and deceptive acts and practices in commerce (“false advertising”) generally, and state consumer protection laws often enable civil causes of action. The state laws sometimes include specific restrictions and enforcement against the inappropriate use of specific terms that the state has found to be deceptive or unfair.

California, for example, has enacted specific laws related to green marketing of consumer goods, requiring that:

[a]ny person who represents in advertising or on the label or container of a consumer good that the consumer good that it manufactures or distributes is not harmful to, or is beneficial to, the natural environment, through the use of such terms as ‘environmental choice,’ ‘ecologically friendly,’ ‘earth friendly,’ ‘environmentally friendly,’ ‘ecologically sound,’ ‘environmentally sound,’ ‘environmentally safe,’ ‘ecologically safe,’ ‘environmentally lite,’ ‘green product,’ or any other like term, shall maintain in written form . . . documentation supporting the validity of the representation.\(^\text{113}\)

In order to comply with California law, businesses must furnish such documentation to individuals upon request.\(^\text{114}\) Remarkably, California requires that businesses keep a record of whether their green marketing complies with the FTC Green Guides,\(^\text{115}\) and compliance with the Green Guides serves as a defense in suits under the California statute.\(^\text{116}\) If prosecuted by the state, violation of this law carries a criminal penalty.\(^\text{117}\)

Vermont’s Consumer Fraud Act (VCFA) is fairly typical in declaring as unlawful “[u]nfair methods of competition in commerce,

\(^{113}\) CAL. BUS. & PROF. CODE § 17580(a) (2009).
\(^{114}\) Id. § 17580(b).
\(^{115}\) Id. § 17580(d).
\(^{116}\) Id. § 17580.5(b).
\(^{117}\) Id. § 17581.
and unfair or deceptive acts or practices in commerce." The VCFA enables the state’s Attorney General to promulgate rules to accomplish the VCFA’s purpose. Lawmakers also specified that the state’s court should be guided by the construction of “unfair or deceptive acts or practices in commerce” by the FTC as well as other courts. This implies that the state’s courts will consider the FTC’s Green Guides in determining whether an environmental marketing claim is deceptive.

Vermont also has an origin rule, stemming from the marketing benefit that Vermont businesses have long enjoyed from the state’s green reputation. The Vermont Origin Rule was enacted in response to complaints about out-of-state businesses, with little or no connection to Vermont, using the Vermont name on their products. The Origin Rule regulates three kinds of claims: (1) unqualified representations of Vermont origin (“Vermont cheddar”); (2) Qualified representations of Vermont origin (“Made in Vermont”); and (3) company names (“Vermont Sausage, Inc.”). The rules on unqualified representations and company names apply only to food marketing, whereas the rules on qualified representations apply to goods and services generally. Violation of the Vermont Origin Rule is prima facie evidence of violation of the Consumer Fraud Act, with civil penalties up to $10,000 in addition to reimbursement of consumers and attorney’s fees.

C. Enforcement

Consumer protection laws are enforced through an array of administrative action, federal and state prosecution, and federal and state civil action. In addition to the costs of litigation and potential penalties, marketers seek to avoid negative publicity. For this reason, many lawsuits settle before summary judgment stages of trial, and marketers are generally quick to comply with guidance from the FTC and state attorneys general. Competitors may challenge a

118. VT. STAT. ANN. tit. 9 § 2453(a) (West 2014).
119. Id. § 2453(c).
120. Id. § 2453(b).
122. Id. 120.04–.06 (2015).
123. Id. 120.02(a)–(b) (2015).
124. VT. STAT. ANN. tit. 9 § 2461 (West 2014).
business’s marketing claims in the National Advertising Division (NAD) of the Better Business Bureau.

IV. PROPOSED SOLUTIONS

Federal and state agencies with jurisdiction over green claims have much to do to improve the clarity, consistency, and credibility of green claims for food products—but regulatory reform is only one part of the solution. Industry will also play a critical role in creating more transparency, accountability, and meaning among green marketing claims. Some combination of government, industry, and stakeholder-driven solutions will ultimately be necessary to bolster the integrity and utility of labeling as a tool to drive and communicate environmental improvements in our food production systems. These proposed solutions include using mandatory labels as a baseline, improving third-party certification standards, creating stronger standards in consumer protection law, and embracing life-cycle analysis.

A. Mandatory Labels as a Baseline and Government Involvement

An investigation into USDA’s organic certification reveals that governments can provide significant trust among consumers, and the funding they provide can be used to promote large-scale acceptance of the certification.126 Centralized government eco-labels are more effective than numerous private ones because it simplifies the information. Simple, clear, obvious, and transparent seal-of-approval logos and labels have generally shaped consumer behavior more than complex information-disclosure labels.127

B. Improving Third-party Certification Standards

Given the problems inherent in first-party labeling, independent third-party certification schemes are widely regarded as an important tool in driving improvements throughout the value chain of food

126. VERMEER, supra note 3, at 33.
production systems. For producers, they can offer an incentive structure and roadmap for improving production. For buyers, they can provide a basis to establish measurable sustainability goals, enhance brand credibility, and buffer against risk. For consumers, certified products offer a level of assurance, verification, and transparency into their purchases. Indeed, well-designed and effectively implemented certification schemes can fuel improvements by providing market recognition to those working to minimize the adverse impacts of food production.\(^1\) Like most things, however, certification is not without its weaknesses and challenges. As the certification landscape evolves and new challenges emerge, so too do innovative solutions.

1. Cost

Though the cost of achieving and maintaining certification can be overly burdensome, there is an increasing focus on innovative ways to finance production improvements and facilitate movement towards certification.\(^2\) A particularly novel approach involves one certification serving as a financing mechanism for another certification. Facilitating this approach, Fair Trade USA recently launched a “wild capture” fisheries standard that includes environmental sustainability requirements that align closely with, but are less rigorous than, the sustainability principles and performance indicators of the Marine Stewardship Council’s standard. Notably, the Fair Trade certification requires that 30% of the Fair Trade premium be allocated to supporting environmental improvements in the fishery.\(^3\) As such, the possibility exists that a fishery that does not perform at a level that would qualify it for certification by the MSC could pursue a Fair Trade certification and generate a premium that could be used to finance sustainability improvements and ultimately lead to MSC certification eligibility.

2. Market Demand

Consumer recognition and support for certification varies

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128. VERMEER, supra note 3, at 33. “[I]t is important to increase the rigor of the certification over time to ensure validity among discerning consumers.”


significantly from region to region. Compared with the European marketplace, the demand for certified products in the North American market is relatively low. For certification to drive change, standard holders/certification schemes need to understand the entire value chain. They need to develop strategies to generate greater market recognition so that as demand increases, so too does the volume of certified product and vice versa.

### 3. Product Availability

Even where there is sufficient market demand, there is often not enough certified product to meet the demand. To address this deficit, more attention and resources are going toward creating pathways for improvement. In the seafood space, there has been a subtle shift from the traditional “buy” or “don’t buy” sourcing strategy to improve sustainability. Now, fishery and aquaculture improvement projects (FIPs and AIPs respectively) are an emerging tool for producers seeking to improve the environmental performance of their fishery or farm to a level consistent with an “unconditional pass” of some of the leading wild fisheries and aquaculture certification standards. Meanwhile, major seafood buyers are formulating sourcing policies and procurement specifications that prioritize sourcing products from a FIP or AIP where certified products are unavailable at the volume, price point, or quality they demand.

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132. Id. at 33 ("Literature on the Rainforest Alliance suggests that their certification was successful because the organization understood the entire value chain from the farmers to the CPG companies and therefore had an appealing argument for all stakeholders. This certification experienced rapid growth and recognition because it was placed on numerous popular products across industries, and because some of the best marketing companies in the world promoted the Rainforest Alliance label on their products. The MSC certification continues to be a force in the industry because it has targeted its approach towards large-scale fisheries in an effort to obtain a significant supply volume so that the products could be purchased by Whole Foods, and more recently, by Walmart. In each of these labels a third-party certifier was also essential."); see also id. at 34 (discussing the continued need to increase market demand for eco-labeled products in the United States).
134. See id. ("These new tools will help us better meet the needs of our business partners" (internal quotation marks omitted)).
4. Market Confusion

Accompanying the growing demand for certified products is an increase in the number and diversity of standards and eco-labels in the marketplace, each representing varying degrees of credibility and environmental performance. Limited transparency and an inability to effectively compare standards create both confusion and the potential for greenwashing to undermine the value of certification as an effective sustainability tool. Efforts to generate greater transparency, clarity, and accountability in the seafood certification space are being undertaken via the Global Seafood Sustainability Initiative (GSSI).  

5. Administrative Burdens

The burgeoning number of certifications also presents some administrative and logistical burdens to the supply chain. To meet the demands and comply with the sustainability commitments of multiple buyers, producers, and suppliers must navigate and reconcile often conflicting, incongruous, and onerous administrative requirements of different certification schemes. In some sectors, there is a movement towards greater coordination between standards to increase operational efficiency.  

6. Incentivizing Continuous Improvement

The dialogue around sustainability has shifted subtly in recent years such that sustainability is often characterized as a defined endpoint (you either are or are not sustainable) as opposed to a journey. Some would argue this shift undermines efforts to

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135. **THE GLOBAL SUSTAINABLE SEAFOOD INITIATIVE 6**, available at http://www.ourgssi.org/assets/Information-Package/2014-04-17GSSI-PPT-.pdf ("The mission of Global Sustainable Seafood Initiative (GSSI) is to deliver a common, consistent and global benchmarking tool for seafood certification and labeling programs to ensure confidence in the supply and promotion of sustainable seafood to consumers worldwide as well as promote improvement in the programs.").

136. See GAA Signs MoU With ASC, GLOBALG.A.P, GAAALIANCE (April, 2013), http://gaalliance.org/news-events/newsroom/gaa-signs-mou-with-asc-globalg-a-p/ ("The Global Aquaculture Alliance (GAA) on April 22 [2013] signed a memorandum of understanding (MoU) with the Aquaculture Stewardship Council (ASC) and Global G.A.P, whereby the standards-setting organizations will work collaboratively to increase efficiency and reduce duplication in the auditing process. GAA, ASC, and GlobalGAP agreed to explore ways to reduce duplication of effort for farms, processing plants, hatcheries and feed mills that undertake certification by more than one of the three organizations' certification programs. All three certification programs share common elements that address the key environmental and social impacts of aquaculture, yet currently audits for each set of standards is conducted separately.").

137. See Tlusty et al., Refocusing Sustainability as a Journey Using the Law of the Minimum,
facilitate continuous improvement, but increasingly stakeholders are developing tools to incentivize movement along that continuum—working with certifications to strengthen their standards and thereby increase environmental performance.

For those working to strengthen the role and impact of certification, the expectation is that well-designed and implemented certification schemes will ultimately lead to positive changes in the environment. To ensure that these improvements are real and enduring, certification schemes themselves must be credible and provide the following nine elements at a minimum. (1) **Clarity**, meaning that the social, environmental, and economic objectives and scope of a standard are clearly defined. (2) **Accuracy**, meaning that claims made about the effectiveness of the program, or social or environmental impacts that derive from the purchase of a product or service, are accurate and do not overstate the results. (3) **Transparency**, meaning that information about how a standards system operates and how to engage with the standards system is made easily available. (4) **Participation** by a diverse range of stakeholders, meaning that standards are developed through a process that includes a reasonable balance of appropriate representation in discussion and decision making. (5) **Measurable, performance-based metrics**, meaning that requirements in the standard contribute explicitly and consistently to the objectives that the standard is seeking to achieve. (6) **Local applicability and global consistency**, meaning that standards are relevant for the specific socio-economic and ecological contexts in which they are applied, while achieving consistent results across different contexts. (7) **Traceability**, meaning that where a standards system includes claims related to the origin of a product, the product can be traced back to certified operations. (8) **Continuous improvement**, meaning that standards system’s effectiveness in achieving its stated objectives is assessed and the learning is integrated into the system to enable continuous improvement. And finally, (9) **impact “on the water,”** meaning that there is a correlation between the improvements in harvest/production and environmental performance.

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4 SUSTAINABILITY 2038 (2012) (“Currently, the message of seafood sustainability is becoming complicated in that the journey toward sustainability is being referred to as having achieved a state of sustainability.”).
C. Life-Cycle Analysis\textsuperscript{138}

In order for food eco-labels to have cutting edge information, governments and certifiers must pursue an “organic plus” model. Practically implementing an organic certification program and eco-label built on base practices standards or environmental life-cycle analysis is no small task. An eco-label informational and certification scheme can provide engaged consumers with a measurable analysis created by experts, and provide a single point of product comparison for the less engaged consumer.

How would such an eco-labeling scheme be implemented? First, a group of experts, under the direction of a state agency, must pick food categories, identified by the significance of their adverse environmental impacts, where eco-labels would make significant improvements to the environment.\textsuperscript{139} These categories might include meats and seafood; pesticide-intensive produce like berries, spinach, and potatoes; and heavily processed foods. For example, research on carbon footprinting has shown that there are product categories that have high variability in footprints within a singular category, so it makes sense to inform consumers about these differences, as it “will give them genuine options that make a difference” since “consumers need options, not just information.”\textsuperscript{140}

Second, environmental life-cycle analysis methodology and/or best practices standards must be developed and used. Considerations should include natural resource and chemical inputs (starting at the production process or raw extraction stage), as well as emissions and pollution output during the production, distribution, use, and disposal stages. The key is to inventory the materials that make up food and that allow for food production. Equally important, and more difficult to determine, is how to inventory their environmental impact. No widely accepted environmental life-cycle assessment methodology for food currently exists.

Third, products must be evaluated according to the above

\textsuperscript{138} See \textit{The Food Statutes}, supra note 17, at Ch. 17.; see also \textit{Food Law and the Environment}, supra note 18.

\textsuperscript{139} Karl Johan Bonnedahl & Jessica Eriksson, \textit{The Role of Discourse in the Quest for Low-Carbon Economic Practices: A Case of Standard Development in the Food Sector}, EUR. MGMT J. 9 (2010) (“KRAV [stated] [t]he label should build in climate impact within broad categories but not distinguish the categories themselves. Somewhat inconsistent however, under the heading 'what to do awaiting the [climate] label on its homepage, KRAV did advice consumers to eat less meat, giving the example that meat causes CO2 emissions that may be 67 times higher than beans do.”).

\textsuperscript{140} Berry et al., \textit{supra note} 127, at 7, 12.
scientific criteria, with a seal awarded to those products surpassing a designated benchmark. It is key to determine what factors influence the success of any eco-labeling program. In other words, what labels work? It is hard to over-emphasize the importance, though, of first identifying what food categories would most help the environment if their carbon, chemical, and waste footprints were reduced.

Finally, a sound graphic in the form of a label or seal must communicate effectively with the consumer.

V. CONCLUSION

Order must be brought to the chaos of food eco-labels if we are to use an informational regulation to reach a sustainable food system. The challenges facing food eco-labeling include greenwashing, a proliferation of labels, consumer confusion, and the need for more and higher quality information. First-party self-declared food eco-labels are particularly problematic due to the lack of oversight and the self-interest of these labelers. Encouragingly, labels through voluntary third-party certification (both public and private) and mandatory government food labeling are gaining traction.

The path to ordering the food eco-label chaos will require participation by numerous stakeholders. Government must assume a greater role, by increasing involvement in labeling and strengthening consumer protection enforcement. A good starting point for doing so would be to build on state law and the FTC Green Guides. Industry must also play its part, improving third-party certification by building upon the organic label to include life-cycle analysis and carbon footprint budgeting.