

**FOOD LABELS AND THE ENVIRONMENT:
DEVELOPMENT AND HARMONIZATION OF ORGANIC REGULATIONS IN THE
EU AND US**



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INTRODUCTION

An increasing number of consumers make purchasing choices informed by ethical and political values, which has expanded the market for so-called “eco-labeled” goods (Micheletti, 2003). The rise of supply and demand for eco-labels is indicative of a more general shift away from traditional command and control forms of regulation toward market-based strategies (USAID, 2005). However, labeling systems are far from simple and raise important concerns for international regulatory harmonization: behind a state-ratified label lies a complex regime of governmental regulation, consumer and producer values, authoritative knowledge, and trade politics. Perhaps for this reason, they have been controversial both within and across regulatory jurisdictions. Process-based labeling of food has received increasing attention in recent years in light of controversies over genetically modified foods, concerns about animal cruelty, the use of chemicals in food production, and the social impacts of labor practices (Henneberry and Armbruster, 2003). Heated cross-Atlantic battles over genetically modified organisms (GMOs), recombinant bovine growth hormone (rBGH) and geographic indicators reveal persistent differences in the regulatory domains of environment, food, agriculture, and sustainability.

Scholars have focused on GMOs and other high-profile disputes to the relative exclusion of organic (e.g., Weirich, 2007), perhaps because organic has not been the subject of trade disputes. In general, voluntary and positive labels like organic, which

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signify a defined set of alternative production practices are less likely to effect trade barriers than negative labels or bans. Furthermore, relative to the amount of total trade in agricultural and food products, organic trade between the US and the EU is small, reducing incentives to maintain various kinds of technical barriers to trade.

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Nevertheless, the scholarship gap on regulatory dynamics of organic constitutes an important lacuna, as organic is the earliest, most globally pervasive food label with an important environmental dimension (Allen and Kovach, 2003). Furthermore, organic is growing in economic and environmental importance. The organic sector has maintained 20% growth annually, becoming a multi-billion dollar market (OTA, 2008) and achieving a high level of legitimacy with consumers around the world. Many environmental benefits of organic production have been documented, from soil and water conservation to protection of biodiversity (Stolze et al., 2000). A growing body of evidence demonstrates that organic production methods could have an important role to play in mitigating climate change by reducing agricultural energy use and sequestering carbon in the soil (Refsgaard et al., 1998; Ball and Pretty, 2002). Lessons learned from the development, institutionalization, and integration of organic standards could be key, not only for the project of harmonizing organic standards, but also for the regulation of “beyond organic” labeling, whether for food miles, local food, fair trade, or carbon footprint.

Organic proves to be an illuminating case in light of recent scholarship on the contested domain of food governance both within and across nations (see, e.g., Ansell and Vogel, 2006). For some time, comparative social scientists have noted how culturally specific accountings of risk have fueled different national conceptions of regulatory problems across the US and Europe (Jasanoff, 1995). Alternatively called political or regulatory culture (Jasanoff, 1986) and regulatory styles (Vogel, 1986), differences across the US and EU have been starkest in transatlantic regulatory controversies involving climate change, GMOs, and hormone-treated beef (Post, 2005). This work has demonstrated patterns of difference: whereas the US regulatory culture focuses on measurable risks of products themselves, so called “risk based” or “product based” approaches, Europe has featured the precautionary principle and highlighted the

relevance of production processes, garnering it the short-hand of “precaution-based” and “process-based” approaches to environmental and health regulation.

An analysis of organic regulation across the US and the EU suggests how these characterizations remain useful, but should not be oversold. Indeed, the case of organic is interesting for theories of trans-Atlantic regulatory culture precisely because those cultures converged to recognize similar process-based and precaution-based standards. Just how this convergence came into being is therefore important. At the same time, differences persisting across the two systems have presented difficulties for harmonization. Accordingly, this paper takes a comparative look at organic in the United States and the European Union with particular attention to the rise of organic regulation in each jurisdiction, major points of divergence and convergence within the two jurisdictions, and prospects for greater cross-Atlantic harmonization.

I. ORGANIC IDEALS AND STANDARDIZATION

The current comparative regulatory landscape of organic has emerged from a long history of actors, ideals and social movements. Though we leave the telling of this rich history to others (Lockeretz, 2008; Conford 2001; Lipson, 1998) a rough map of this terrain provides necessary grounding for the analysis of the current situation across the US and the EU. In a nutshell, this story highlights an evolution from decentralized, soft and private standards to a more formal and standardized system overseen and ratified by government. Central to this story is the way ideals and actor-networks formed simultaneously across different states and localities, laying the groundwork for a transnational social movement that actively developed common principles and standards.

A. Early Ideals and Actors

Organic agriculture emerged from the holistic farming philosophies and practices of, among others, Rudolf Steiner, J.I. Rodale (1942, 1954), Sir Albert Howard (1940) and Lady Eve Balfour (1950). Writing during the early to mid 20th century in Germany, the United States, and the United Kingdom respectively, they stressed the close connections

between the health of soils, quality of food, and human well-being (Vos, 2000). These early thinkers developed sets of specific agricultural practices designed to bring agricultural systems more in line with their understanding of ecological principles. Although organic methods are often similar to traditional and indigenous farming methods that have been practiced for centuries, organic coalesced as a movement in the 20th century as a response and alternative to industrial, input-driven agriculture (Conford, 2001).

In principle, organic agriculture sees the farm as an organism and seeks to mimic ecological patterns through practices such as local nutrient cycling, the use of on-site resources, and use of plant and animal species adapted to local conditions. Organic producers rely on crop rotation, green manure, compost, biological pest control and mechanic cultivation to maintain soil productivity and control pests. All organic standards exclude or strictly limit the use of synthetic fertilizers, synthetic pesticides, livestock feed additives and hormones.

B. Early Standardization

For more than fifty years, the definition of organic has co-evolved with practices of standardization and certification. Since the late 1960's, associations of organic farmers and consumers have been developing and refining formal guidelines and standards as a way to guarantee organic quality to consumers, prevent fraud, and to facilitate growth of the organic market (Bowen, 2002). Organic 'seals' have long been used in conjunction with certification to communicate organic quality to consumers at a distance.

Organic production was first defined by the UK Soil Association, founded in 1946 by Lady Eve Balfour. The Association published organic standards in 1967 and developed a certification seal based on on-site inspections in the mid-1970s (Bowen, 2002). Throughout the 70's and 80's, certification organizations with their own standards and seals were developed throughout Europe. Some of the most notable include Skal in the Netherlands, KRAV in Sweden and Bioland in Germany. By the early 1990's, six

European countries had a national legal definition of organic and eleven had standards set by private sector bodies.

The Rodale Seal of Approval was the first certification program in the US. In 1973, California Certified Organic Farmers (CCOF) became the first organization to create an institutional apparatus to systematically enforce the Rodale Seal (Guthman, 1998). In the following decades, organic certification programs proliferated across the country (e.g. under the umbrella of the Northeast Organic Farmers Association (NOFA) and Regional Tilth on the west coast). By 2000, 30 states and approximately 30 private certification bodies were enforcing organic regulations (Riddle, 2008; Dimitri and Greene, 2005). Enforcement was uneven. Some states required their departments of agriculture to certify producers; other states codified organic definitions into law but left enforcement to private certifiers; while others did not intervene, leaving standardization activities to private certifiers with various levels of second versus third-party systems of certification (Guthman, 2004).

Arguably the most important organization to set organic standards in the early years of the movement was the International Federation of Organic Agriculture Movements (IFOAM). IFOAM is considered the most broadly representative and respected voice of the organic movement (Lockeretz and Lund, 2003). It was founded in 1972 in Versailles, France by Lady Eve Balfour of the Soil Association of Great Britain, Kjell Arman of the Swedish Biodynamic Association, Pauline Raphaely of the Soil Association of South Africa, Jerome Goldstein of Rodale Press in the United States, and Roland Chevrier of Nature et Progrès in France. IFOAM saw the need for information exchange between national and regional organic movements and fostered cooperation across cultural, language and geographic barriers. It published informational newsletters, expanding the distribution and languages of translation worldwide as the organization's capacity and funding grew. Although it is a European based organization, approximately 75% of the membership comes from Southern countries (Raynolds, 2004). Today, IFOAM is a worldwide umbrella organization for the organic movement representing more than 750 organizations in 108 countries.

IFOAM defined Basic Standards for Organic Agriculture (IBS) in 1980. These standards are particularly respected because they are based on a process of stakeholder

consultation and democratic deliberation (Padel et al, 2007). Every three years IFOAM members are invited to a General Assembly to revise the standards and elect a governing World Board. The IBS have been used extensively as a reference by standard-setters in Europe, Brazil, China, Egypt, India and Argentina (UNCTAD, 1996).

C. Regulatory Federalisms: The Rise of State Regulation

The push to standardize organic at the national level in the United States and the regional level in the European Union came in the late 1980s. The history of this push toward public oversight of organic certification is important, as it may prefigure the transition to government regulation of other private environmental regulation within, e.g., forest management, marine biodiversity, and other food systems. As the organic market expanded, the proliferation of labels and certification schemes produced a network of uneven enforcement, trade barriers, consumer confusion, and fraudulent claims made by farmers attempting to cash in on organic price premiums. Actors within both government and the organic movement in the US and EU saw standardization as a way to protect consumers and producers by guaranteeing organic quality to consumers and preventing fraud. They also pursued standardization as a means to support the growth of the organic market and facilitate trade (Bowen, 2002; Schmid, 2008). In the EU it became important to anchor standards in law as they became a condition for receiving support payments. European policymakers' interest in supporting organic grew as it was perceived to deliver environmental and rural development benefits, and because it was seen as an important infant industry (Schmid, 2008). By the early 90's organic was embraced in the EU as part of a larger turn toward agri-environmental policy aimed at rectifying the overproduction and ecological problems associated with conventional, intensive agriculture (Schmid, 2008). As we discuss below, each jurisdiction took a different path to standardization, but both developed organic rules resonant with existing standards defined by the organic movement.

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The EU collaborated closely with organic movement actors in the process of standardization. The 1991 EU Rule (EC 2092/91) defining organic crop production is based directly on the standards developed by IFOAM. IFOAM continues to play an

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important role in defining organic at the EU level. During the negotiations for the 2007 Organic Revision (which took effect in January of 2009), the EU adopted IFOAM's guiding principles of health, ecology, fairness and care as the foundation for moving organic forward (Padel, 2007).

Organic is implemented and supported unevenly throughout member states (Michelsen, 2001; Lampkin, 2002).¹ Each member state is responsible for interpreting the rule within its jurisdiction and establishing one or more "competent authorities," either national or private, to regulate organic production. Although the EU standards for crop production supplanted existing member state standards, the 1999 livestock standards (EC 1804/1999) allow a degree of flexibility by defining a baseline which member state and private standards are allowed to exceed (Padel and Lampkin, 2008). Despite any differences in standards, however, EU member states must accept all products certified organic within the EU (Dimitri and Greene, 2005).

There is strong support for allowing countries and private certifiers to set their own standards in the EU. The tension between maintaining diverse national and private standards versus a centralized EU standard is highlighted by debates over organic logos and labels. Some member states have their own label while in other states private labels are well known to the public (for instance, KRAV in Sweden, Skal in The Netherlands, and the Soil Association in the UK) (Dimitri and Oberholtzer, 2005). Until the recent Organic Revision, use of the EU logo was voluntary and few certifiers used it. If the "brand" of national or private certifiers is strong in the marketplace, certifiers favor their own logos (Dimitri and Oberholtzer, 2005).

As part of the new organic regulation EC 834/2006, the EU organic label will be required on all packaged organic products produced or processed in the EU starting in July of 2010. Organic farming organizations have raised concerns about the EU logo, stating that it will crowd out limited package space, confuse consumers, and compete with private and national logos that have developed a high degree of trust among

¹ Differences in standards within the EU can be attributed to long-standing rules in countries with deep histories of organic agriculture, strong national lobby or interest groups, differences in climate and structural conditions, and the desire to differentiate standards in a sector with high consumer demand (Schmid et al., 2007). Differences are also attributed to different national contexts in terms of organic social movements, national agricultural discourse, and the belief systems of different coalitions (Michelsen, 2001).

consumers (Soil Association, online; IFOAM, 2004). Tension over the mandatory EU logo also turns on ideas of local, regional and national identity as well as concerns that branding organic food with 'EU' could undermine consumer confidence as a result of what IFOAM calls "Eurocepticism" (IFOAM, 2004).

The definition and regulation of organic is more centralized in the United States. The US National Organic Program (NOP) requires all organic food producers with sales over \$5000 to meet the same production and handling standards and be certified under the same process. With the enactment of the NOP in 2002, existing certification bodies such as California Certified Organic Farmers and Oregon Tilth were converted from standard writers to service providers, certifying to federal standards under a system of accreditation (Mutersbaugh, 2005). There are currently 95 accredited state and private agencies under the NOP, 55 domestic and 40 foreign (USDA, 2008). The NOP preempts these agencies from setting standards that exceed or grant exceptions to the federal standard.² While labels must state which agency certified the product, the national logo is not required.

The push for a US organic rule came from outside the United States Department of Agriculture (USDA) when Senator Patrick Leahy (D-VT), then chairman of the Agriculture Committee, worked with organic movement actors to write the 1990 Organic Foods Production Act (OFPA). A long, and at times contentious, process ensued between the passage of the OFPA and the 2002 National Organic Program (NOP). The Organic Foods Production Act originally stipulated that states could have "additional standards" (US Senate, 1990), but the final USDA rule imposed a federal ceiling.

As definitions have become centralized, some argue the movement has lost ownership of the meaning of organic (Lockertez and Lund, 2003; Guthman, 2004; Courville, 2006). Organic standards concretized in US and EU legislation emphasize measurable criteria that are easy to codify and audit. Some argue that these standards, defined largely through the determination of acceptable and unacceptable production inputs, undermine the complex, holistic norms and principles underlying organic and lead to a "shallow" sustainability of allowable inputs (Goodman, 2000; Reynolds, 2004). Thus, standardization has opened the door for the "conventionalization" of organic

² Unless there are specific environmental conditions that necessitates stricter standards.

agriculture. Still, many movement actors maintain that the US and EU organic standards represent a victory of the organic movement and constitute a vital alternative to conventional agriculture (DiMatteo, 2008; Riddle, 2008).

II. RELATIVE CONVERGENCE

Differences in goals and decision-making tools set organic food regulation on different trajectories in the EU and the US. This divergence in the formal conceptualization and uptake of organic across the US and EU stems in part from the aforementioned differences in regulatory culture. However, where such differences have led to polarization in areas such as GMO regulation and hormones in cattle, the organic case is strikingly different. While a few important substantive details of the standards diverge across the US and EU -- differences that have proved stumbling blocks on the road to cross-Atlantic harmonization -- the two regulatory systems are marked by relative convergence with respect to core organic standards and certification. This presents an interesting puzzle: why have common understandings of organic processing and handling emerged in the US and EU despite their being shaped and defined within divergent regulatory cultures?

One threshold factor explaining convergence is that the organic story is one of voluntary labeling, not the far more contentious practice of banning substances evident in the GMO and hormones stories. Another factor likely involves the relatively low, though growing, volume of trade in organic across jurisdictions, which would in theory lower the protectionist payoffs of maintaining technical barriers to trade. The EU and US are currently the major players on the organic scene, accounting for 96 percent of global organic revenues (IFOAM, 2006), and exports from the US to Europe are expected to grow at a rate of 5 percent over the next several years (FAS, 2008).³ But most organic

³ Currently, it is difficult to assess the exact amount of trade taking place between the EU and US as neither jurisdiction keeps official statistics, and the internationally standardized classification system for traded products (Harmonized Commodity Description and Coding System) does not differentiate between organic and conventionally grown products. According to the Organic Trade Association, the largest European export markets for US organic products are the UK (~\$40 million), Germany (~\$20 million), and the Netherlands (~\$15 million) (OTA, 2000). Both are net importers of organic, sourcing products from around the globe. Some EU countries have attempted to develop reliable statistics, however data are not comparable between different countries and some countries have no data or only rough estimates (Rippin,

food in the US and EU is grown for internal markets. The US Foreign Agricultural Service estimated the value of organic imports in 2002 at \$1-1.5 billion while exports made up less than 5 percent of total organic retail market value at approximately \$125-250 million (Greene, 2006).

In the face of stark differences in how the two regulatory cultures approached food standards, these two factors helped set positive conditions for regulatory harmonization, but they do not explain how relative convergence on process-based and precaution-based standards was achieved. We argue that polarization was averted due to the ability, ultimately, of the organic *social movement* to influence both sets of regulations, albeit through different vehicles. In the EU, standards were based on the movement-defined standards of IFOAM. In the US, the grassroots organic movement intervened in an adversarial fashion to demand an organic rule resonant with movement-defined standards. Through both a citizen advisory board (the National Organic Standards Board, discussed below) and a rigorous process of public comment, organic movement actors were able reshape the regulatory regime in the US, acting as a force of convergence with European regulations.

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A. Divergent Regulatory Goals

EU and US organic policies differ starkly in their explicitly stated regulatory goals, setting up the conditions for divergence. By the late 1980s, the EU had begun shifting away from input and technology-intensive agriculture, perceiving conventional agriculture to be the cause of a range of environmental problems. The European Commission explicitly supported organic as a tool to achieve environmental and rural sustainability goals (Commission of the European Communities, 2004). The United States Department of Agriculture, on the other hand, acknowledged sustainability as a goal in the 90s,⁴ but did not claim organic as a tool to achieve it.

et al., 2006). Efforts are underway to develop a European Information System for Organic Markets (EISFOM).

⁴ For instance, as the battle over organic was unfolding, U.S. Secretary of Agriculture Daniel Glickman issued a Memorandum on USDA sustainable agriculture policy. It stated, "USDA is committed to working toward the economic, environmental, and social sustainability of diverse food, fiber, agriculture, forest, and range systems. USDA will balance goals of improved production and profitability, stewardship of the

The USDA approached organic as merely a niche market and categorized it as a marketing tool based on consumer preferences rather than a method of sustainable agriculture (AMS, 2000). Historically, the USDA has been largely indifferent, if not hostile, to the potential benefits and research needs of organic farming (Lipson, 1997). Thus, US policy in the organic sector takes a free-market approach aimed at facilitating market development rather than directly supporting farmers (Dimitri and Oberholtzer, 2005).

In the EU, organic was taken up as part of a larger turn toward agri-environmental policy (Baldock and Lowe, 1996). A number of European countries were already providing consumer education and direct financial support for conversion to organic by the late 1980s, recognizing environmental benefits such as improved soil tilth and productivity, lower energy use, and reduced use of pesticides (Greene and Kremen, 2003). Organic is actively promoted in the EU through ‘green payments’ to farmers, as well as a variety of other policies aimed at supporting the growth of the sector⁵. A 2000 EU report, *The Environmental Impacts of Organic Farming in Europe*, documents the environmental benefits of organic agriculture including the conservation of soil and water resources, reduction in fossil energy use, and protection of biodiversity through increasing available habitat and reducing use of harmful chemicals (Stolze et al., 2000).

B. Risk versus Precaution Rears Its Head

If organic regulation in the US and EU diverged significantly in terms of articulated goals, it also threatened to diverge on the grounds of its validation and evidentiary basis. The story of organic reflects epistemological differences between these regulatory jurisdictions that have played out dramatically in debates over agricultural technologies such as genetically modified organisms (GMOs) and recombinant bovine

natural resource base and ecological systems, and enhancement of the vitality of rural communities. " [Secretary's Memorandum 9500-6: *Sustainable Development* (U.S. Department of Agriculture, Office of the Secretary, Sept. 13, 1996)]

⁵ The EU uses the inventories of agricultural area under organic management as an environmental indicator (EEA, 2005), and member states set specific targets for increasing land under organic management (Dimitri and Greene, 2005). Many have set targets for 10-20 percent of agricultural land area under organic by 2010 (Lampkin, 2002), with conversion rates much higher than the US.

growth hormone (rBGH). Whereas the US has typically been characterized as technologically optimistic (Jasanoff, 2006), the EU has taken a more precautionary approach to technological risk management (Post, 2005). The EU readily accepted the definitions and standards developed by the organic movement based on a precautionary approach to agricultural technologies. In contrast, the USDA proposed an organic standard which only excluded food production technologies based on a demonstration of “measurable degradation” within a technical risk assessment. As a result, the USDA lobbied to include a host of technologies under the organic umbrella that had never been a part of organic production.

Organic is inherently a precautionary method of agriculture. Organic principles have gone hand in hand with a critique of the industrial approach to farming and its concomitant technologies – synthetic fertilizers, pesticides, and GMOs (Vos, 2000; Conford, 2001). From its inception, the organic movement rejected the reductionist approach to agricultural science and the technologies it engenders, arguing that they undermine the ability of the farm to function as a balanced ecological system (Conford, 2001). The ecological farming pioneers critiqued the soil and water impacts related to the first major agro-technological input -- synthetic fertilizers developed in the 19th century based on the science of Justus von Liebig (1840). In a recent analysis, Earley defined one of the “ten organic principles” as “avoiding use of other technology such as biotechnology and irradiation” (Earley, 2006). Thus, definitions of organic stress its “naturalness” (European Commission, online) and divide agricultural inputs into natural/good⁶ and synthetic/to be avoided.

While the EU perceives environmental benefits in shifting toward the precautionary-based methods of organic, the USDA has never claimed that organic methods are favorable to technologically-intensive conventional agriculture. The initial standards put forward by the USDA for public comment in 2000 included a range of agricultural technologies not permitted by any existing state or private organic standards in the US or internationally. The USDA argued that excluding production processes that have not been “proven” to be unsafe would falsely imply an assumption that these

⁶ Although distinctions are made about harmful naturally occurring substances such as strychnine or arsenic (Riddle, 2008).

processes were less safe than traditional organic methods (Bostrom and Klintman, 2006). The most significant of these became known as the “Big Three” -- food irradiation, sewage sludge as a soil amendment, and genetically modified organisms. The USDA also proposed that numerous synthetic substances rejected by organic movement actors be included on the National List of allowed inputs (Kirschenmann, 1998) and that antibiotics and feed additives be permitted in livestock operations with few to no restrictions.

The rationale for the technologies and substances allowed in the USDA’s proposed organic rule was couched in the language of risk assessment and risk management (Vos, 2000). In a departure from the precautionary approach embedded in existing organic standards, the USDA would exclude no technologies in food production without a showing of “measurable degradation” (USDA, 1997). In effect, the proposed rule attempted to shift organic from a process-based standard to a product-based standard whereby “measurable degradation” in the final product would determine the use of crop inputs, antibiotics and feed additives (Vos, 2000). The USDA emphasis on the need to demonstrate risk for products before regulating echoed the US’s stance on GMOs. US-EU debates on GMOs were unfolding at the same time, and the proposed USDA rule meshed well with the contemporaneous US Trade policy opposition to mandatory labeling for genetically engineered products (Lilliston and Cummins, 1998).

Opmerking: This section has been edited to avoid the perception that we are saying precaution is in opposition to “science.” Instead, we emphasize how the opposition is one of precaution versus demonstrated risk as principles of risk management.

Organic movement actors cited the proposed rule – especially its position on the Big Three – as an indication that the USDA was a “captured” agency influenced by and beholden to agribusiness interests (Vos, 2000; Klintman and Bostrom, 2004). Some cite the fact that the USDA proposed rule was vocally supported by the Grocery Manufacturers of America, the National Food Processors Association and the Biotech Industry Organization as evidence of its capture (Lilliston and Cummins, 1998). It is widely held that the USDA has historically favored agribusiness and fostered technology-driven agriculture (Thompson, 1995).

As we discuss below, the USDA acquiesced in large part to movement demands in the end, producing a final rule that matched existing precaution-based organic standards. But it did so by avoiding the implication that organic and its precautionary approach was favorable to conventional agriculture, categorizing organic as a form of

market differentiation and housing it under the Agricultural Marketing Service. Interestingly, the official definition of organic also retains the shift from process to product, defining organic as *food* produced by farmers who follow certain protocols (USDA, online), whereas the EU and other significant international definitions of organic⁷ define it as an *agricultural production system* (European Commission, online).

C. Organic Movement as Convergence Factor

It is notable that differences in explicit goals as well as regulatory culture vis-à-vis risk-based regulation have not resulted in the polarization of organic regulation across the US and the EU. In the end, both standards closely reflect organic standards promulgated by the organic movement, and therefore are remarkably similar (Courville, 2006; Bowen, 2002). For instance, there is a high degree of agreement on the importance of maintaining long-term fertility and biological activity of the soil, prohibiting most synthetic inputs, conserving water, natural resources and biodiversity, and prohibiting recombinant-DNA technology. The technical standards of crop production in both jurisdictions are particularly compatible (as opposed to livestock production), as evidenced by the fact that farmers can relatively easily follow the most restrictive criteria of both rules and thereby be certified for sale in both markets⁸ (Hourigan, 2008).

In both the US and EU federal organic systems, the participation of actors and existing standards from within the organic movement exerted a profound influence on the substance of regulations, however the mechanism through which this infusion occurred differed across the two. The EU has no formal mechanisms for public participation in organic rule-making, although movement actors have been influential in drafting both the original standards and the 2007 Revision. In contrast, the US process has formal mechanisms for public input into the organic rule. This structure resulted in conflict between the government (represented by the USDA) and organic movement and industry

⁷ Definitions of Codex Alimentarius and International Federation of Organic Agriculture Movements found on official websites.

⁸ However, this practice results in increased costs for both producers and certifying bodies, as they must deal with the complexities of managing multiple accreditations (Bowen, 2003).

actors, but led to a final organic law that was much closer to IFOAM and European standards.

1. The EU Regulation and the Influence of IFOAM

In Europe, the International Federation of Organic Agriculture Movements has been closely connected to the development of organic at the state and EU level. Many of the certification organizations that existed in Europe prior to the 1991 regulation used the IFOAM Basic Standard to develop their organic programs (DiMatteo, 2008). Furthermore, when the European Commission took up the discussion of an organic regulation, many certification programs from both the private and public sector submitted the IFOAM Basic Standard as a reference document. When the draft rules were released, IFOAM, as well as countries with organic programs and private sector certification organizations, submitted comments to the Commission and the European Parliament to influence the outcome. Finally, as mentioned above, the EU adopted IFOAM's guiding principles of health, ecology, fairness and care as a foundation for the 2007 Organic Revision.

Adapted from the IFOAM Basic Standards, the European rules are thus based on a decades-long democratic process of defining and revising organic methods of production. However, there is no formal democratic process of public involvement in the EU organic rule making. The decision-making structure in relation to the EU organic regulation involves the European Commission, the respective Ministries of the Member States represented in the Council of Ministers, and the opinion of the European Parliament. National experts of the ministries are members of a regulatory committee (similar to Standing Committee Organic Farming (SCOF)) that is involved in decisions about implementation rules in the Annexes. The commission can also seek advice of an Advisory Group on Organic Farming (Padel et al., 2007).

In a report commissioned by the EU to inform the 2007 Organic Revision, Padel et al. asserted,

It is not fully transparent how organic operators, organic sector bodies and other interested stakeholders can make their views known within the current structure . . . [A]

process of participative and deliberative democracy allowing a representation of relevant stakeholders, considering expert advice and following certain rules of ethical dialogue should be adopted in relation to decision making about integrating organic values in regulations and their interpretations (Padel et al., 2007).

IFOAM has also stressed that “there is a need for formal representation from the organic movement to provide authenticity and technical advice to the European organic standard-setting process” (IFOAM, 2004).

2. USDA and the National Organic Standards Board

Participatory governance brought the US regime closer to that of the EU through the development of an official citizen advisory board with statutory power within the National Organic Program as well as through high levels of public comment during the rule-making process. The US organic program contained mechanisms for public participation from the beginning thanks to the Organic Foods Production Act (OFPA) of 1990. Authored by Senator Patrick Leahy (D-VT) in collaboration with organic movement and industry actors, the OFPA included specific mechanisms for power-sharing between the USDA and the organic movement. The Senate Report that accompanied the Act argued for the need to limit the Federal government's discretionary authority given that it had little experience in the organic industry (US Senate, 1990).

This was accomplished by creating a National Organic Standards Board (NOSB) empowered to advise the Secretary of Agriculture. The NOSB was (and still is) comprised of 15 members: four organic farmers, two organic handlers, one owner or operator of a retail establishment with significant trade in organic products, three experts in environmental protection and resource conservation, three representatives of public interest or consumer interest groups, one expert in the field of toxicology, ecology, or biochemistry, and one USDA accredited certifying agent (OFPA, 1990).

The NOSB was given an ongoing role in setting and revising the National List of allowed synthetic and prohibited natural inputs in organic systems. The NOSB recommends to the USDA the universe of synthetic materials acceptable for organic production. The Secretary of the USDA can then reject synthetic materials for use in

organic production from the Proposed National List but cannot add synthetic materials that are not first recommended by the NOSB (OFPA, 1990).

The NOSB played an instrumental role in developing the US national standard. Between 1992 and 1996, the NOSB held public sessions nationwide during which they received an unprecedented amount of input from farmers, businesses and consumers on the development of the national standard. (OTA, online). Through detailed and thorough work, the NOSB developed recommendations that reflected a high level of consensus in the organic community (Vos, 2000).

Thus, the recommendations submitted by the NOSB to the USDA were closely aligned with existing organic standards in the US as well as the IFOAM and EU standards. The USDA, however, had final authority in determining the regulations and rejected the NOSB recommendations in full, releasing a National Organic Program Proposed Rule in December 1997 that bore little to no resemblance to the NOSB proposals. As discussed above, the USDA Proposed Rule included the “Big Three” (food irradiation, sewage sludge and GMOs) and tended to “efface the distinctions between organic and conventional agriculture” (Vos, 2000 p.248) and undermine longstanding philosophies and practices of the organic movement (Lilliston and Cummins, 1998).

In the US, unlike the EU, the uptake of organic regulation into the Federal regulatory process was intensely politicized (Guthman, 1998). Political authorities at the federal level and advocates of organic agriculture were oriented in an antagonistic position (Bostrom and Klintman, 2006), one that fits into a larger pattern of adversarial relations in US environmental policymaking (Brickman et al., 1986) that has been contrasted with Europe’s “consensual” mode (but *cf.* Löfstedt and Vogel, 2001). The USDA Proposed Rule resulted in an intensive mobilization of opposition within the organic movement. A record number of 275,000 public comments were submitted to the USDA, an overwhelming majority in opposition. The existence of the NOSB proposed standards, developed with a high level of public input, provided a concrete reference to which citizens and interest groups could refer in their demands to the USDA.

These mobilizations were dramatically successful in reorienting the US organic rule toward consistency with existing local and international standards. In 2002, the USDA released final standards for the National Organic Program that largely matched the

original NOSB recommendations, which in turn had been influenced by IFOAM and European standards. It is difficult to say what caused the shift in the USDA approach. Some believe the importance of international equivalency in fostering US exports dissipated pressures to undermine the organic standard (Zygmunt, 2000). For instance, some adjustments made to the US standards between the proposed and final rule conformed with the EU, such as the acceptance of 70% rather than 50% as the threshold for products to be labeled “made with organic” (Bostrom and Klintman, 2006). The USDA also likely realized that these changes to the organic standard would be a way to appease US consumers looking for GMO-free and hormone-free options without requiring mandatory labeling on GMOs in the US.

Opmerking: Addresses first comment

Clearly, public pressure played a major role. Public outcry in opposition to the “Big Three” aligned with public demands for choice around purchasing and consuming GMOs. Klintman and Bostrom argue that the issue became framed as one of “consumer democracy” according to which both parties felt compelled to heed the public reaction (2004). Sixteen years after the final rule was enacted, Alexis Baden-Mayer of the grassroots Organic Consumers Association (founded as a result of the USDA Proposed Rule with the goal of inspiring consumer opposition) stated of the National Organic Program, “You won’t find any other process for setting federal policy that is more democratic and inclusive of public participation” (Baden-Meyer, 2008).

III. PROSPECTS FOR HARMONIZATION

Eco-labels and labels for “virtuous food” require some degree of trade harmonization to grow markets, reach a large number of consumers, and facilitate entry for new producers. The success of eco-labels in a global context depends on international harmonization. Not only is there internal motivation for harmonization on the part of government and movement actors (Crucefix, 2002), there is external pressure from international agreements such as the Agreement on Technical Barriers to Trade (TBT) at the World Trade Organization (WTO), and other agreements.⁹ Supply of organic goods

⁹ The following make the case for international standards to facilitate trade: 1. Article 2.4 of the WTO Technical Barriers to Trade Agreement

lags behind demand in the US and EU, the two largest organic markets. Harmonized standards would facilitate trade between these regions, as well as help farmers in developing and middle income nations engage in trade with these major markets (USAID, 2005).

Compared to the polarization of food safety regulation in other domains, organic regulation stands out as a promising candidate for international harmonization: convergence across the US and EU organic regulatory system spans the similar stance to the so-called Big Three, as well as the general commitment to what is fundamentally a process-based approach. In adopting, to a large extent, the recommendations of the NOSB, the final US organic rule has at least recognized as legitimate the traditional precautionary stance of the organic movement.

If only it were so easy. Despite what we are calling the “relative convergence” discussed above that stemmed from the influence of a strong and transnational organic movement, relatively small but intransigent differences have calcified across the two jurisdictions. These differences have prevented the achievement of an equivalency that could be within grasp. In this section we review those differences and the state of efforts to overcome them at the international level. We also review the complex system of international accreditation that has emerged in lieu of equivalency, and some of the costs of such complexity at the international level.

A. Key Stumbling Blocks

Although an international organic trade has developed across the two jurisdictions and elsewhere (discussed in more detail below), harmonization across regulatory systems has proven elusive. The European Commission and USDA Foreign Agricultural Service (FAS) initiated confidential discussions aimed at “equivalency” in 2004.¹⁰ According to

(TBT) requires central governments to use international standards where they exist; 2. Draft Protocol 2 of the UN Economic Commission for Europe calls for governments to use international standards; and 3. US policy directs federal agencies to consider international standards in the interest of promoting trade and implementing international agreements (Vaupel and Rundgren, 2003).

¹⁰ Although harmonization is sometimes defined as a process aimed at establishing identical rules and technical regulations, it can also be used interchangeably with the term equivalency - the acceptance that different standards or technical regulations on the same subject fulfill common objectives (ITF, 2006).

the USDA, the Terms of Reference for the equivalency negotiations were based on the general provisions of the TBT Agreement (Bowen, 2004).

Although the US and EU have great potential for harmonization, negotiations foundered and were dropped due to impasses on a number of specific differences entrenched in formal legislation (Earley, 2006; DiMatteo, 2008). Although international harmonization was stated as a goal in the US Senate Report that accompanied the 1990 Organic Foods Production Act¹¹, political negotiations during the development of the US national organic rule resulted in some important differences between the US and EU standards, with three in particular creating obstacles to equivalency (Riddle, 2008): the approach to the farm unit, the lists of prohibited and allowed inputs, and criteria for livestock operations. These are discussed in turn.

1. Farm unit

The different approaches of the US and EU standards to the farm unit are evidenced by criteria on parallel production of organic and conventional as well as the degree to which the farm is treated as a closed or open system of production. These differences can in large part be attributed to the different geographical features of agriculture in the US and EU (DiMatteo, 2008). The EU has a long history of smaller, integrated farm units, while US agriculture is characterized by larger-scale, specialized farms in geographical regions (Crucefix, 2007). This is in part reflected by organic rules – the EU mandates that a given farm unit must be fully organic and takes a more regional approach to production, requiring that the prevailing part (more than 50 percent) of animal feed comes from the farm unit itself or is produced in cooperation with other organic farms in the region. The US, in contrast, allows parallel production of organic and conventional on the same farm unit as long as production, storage and processing are managed by physical barriers to prevent commingling and contamination. The US has no requirements related to regional sourcing of animal feed (Crucefix, 2007).

¹¹ The OFPA cited the IFOAM Basic Standards on which the EU standards were based as an example of the kind of harmonization it sought to achieve.

2. Lists of approved and prohibited substances

Different approaches to lists of approved and prohibited substances in organic production have also proved to be roadblocks in equivalency negotiations. The EU developed a “positive list” based on IFOAM standards while the US Organic Foods Production Act designed a “negative” list. The EU has a closed list of acceptable inputs (including both “natural” and “synthetic”) with no reference to prohibited materials. Producers can only use substances explicitly listed. The US list, conversely, allows all “natural” substances to be used unless they are expressly prohibited and prohibits all “synthetic” substances unless they are specifically allowed. The lists pose a problem for determining equivalence, since it is difficult to make side-by-side comparisons of accepted and prohibited inputs. Maintaining a “positive” list also reduces local and regional variation and flexibility and in effect requires constant adjustment of the lists by administrators as new techniques are found to address production problems (Riddle, 2008). Negative lists allow greater flexibility and the possibility that any input or procedure not explicitly disallowed could be used, consistent with more general guidance (Earley, 2006).

Beyond the different structure of the lists, some of the allowed materials differ. There has been a long-standing controversy over specific inputs such as Chilean nitrate (sodium nitrate) (Baker, 2008; Crucefix, 2007). The US allows the use of sodium nitrate for up to 20% of the crop’s total nitrogen requirement while the EU prohibits its use altogether. The “black or white” nature of the use of specific inputs leads to protracted debate over whether or not they are permissible and to what extent. In contrast, issues such as appropriate measures to conserve water resources or maintain soil fertility involve many more shades of grey and allow greater leniency in practice (Crucefix, 2007).

3. Livestock standards

Livestock standards have posed the greatest challenge to equivalency. The differences between the US and EU on antibiotic use in livestock operations proved

insurmountable in recent negotiations (Earley, 2006). Interestingly, the original US National Organic Standards Board recommendations were in harmony with EU and IFOAM antibiotic criteria, but non-equivalent criteria were established in the process of the US standard-setting controversy. The NOSB proposed that antibiotics be allowed only for the treatment of a sick animal, not as a growth promoter or preventive measure, and never on a routine basis (OTA, online). Following the EU and IFOAM criteria, the NOSB recommended that animals be treated with antibiotics if all other methods of treatment have failed and be brought back into organic production after a specific withdrawal period.

However, the USDA Proposed Rule of 1997 held that organic farmers should be allowed to use routine antibiotics without restriction as do conventional farmers. The organic community rebutted with an appeal to international harmonization, insisting that U.S. standards be developed to “fit within the guidelines of the International Federation of Organic Agriculture Movements adhered to by many countries (Youngberg et al., 1998). In the subsequent dispute and negotiations, which involved other major players including the pro-antibiotic Cattlemen’s Board, the organic community was pressured into a choice between “all antibiotics all the time” or “no antibiotics ever” (Baker, 2008). The resulting rule concluded that organic livestock can never be treated with antibiotics. Sick animals treated with antibiotics must be slaughtered and sold as conventional or diverted to a conventional operation.

Now that the standard is in place, the US organic community defends it as a better interpretation of organic principles than that of the EU (Riddle, 2008; DiMatteo, 2008). Once standards are entrenched they become very difficult to shift as farmers, processors, consumers and entire systems of production become invested in them. Negotiations over other livestock standards have also been intractable with both sides defending their own standards as a better interpretation of organic (Hourigan, 2008; DiMatteo, 2008). These include the use of manure from “factory farms” as fertilizer and animal feed standards. The US does not restrict manure use based on its source yet requires 100% organic feed for livestock. The EU, conversely, prohibits manure from extensive husbandry and factory farms, but allows up to 60% non-organic feed in “conversion feed” and up to 25% conventional feed in daily rations (Riddle and Coody, 2003).

B. Current Complexity and Its Costs

Governments, traders and certification institutions have developed complex pathways to facilitate trade despite a lack of full harmonization.¹² These include compliance, mutual recognition and equivalence-based mechanisms. The EU grants equivalency to foreign countries (called “third country” status) and mandates that all Member States allow imports from these countries. As of April 2008, seven countries have been afforded this status - Argentina, Australia, Costa Rica, India, Israel, Switzerland, and New Zealand.¹³ The EU also allows Member State “competent authorities” with jurisdiction over organic production to authorize importers (called “importer derogation”). This has been the predominant import mechanism. Each importer must obtain a separate authorization for each imported product. It is up to each country, and in some countries, each state, to interpret the requirements of importer derogation, thus inhibiting the flow of imported goods between states (Commins and Wai, 2003). As a result of the 2007 Organic Revision, the European Commission will also begin directly accrediting certification bodies in third countries to certify to EU standards.¹⁴

Direct accreditation of foreign certification agencies by the USDA is the predominant import mechanism in the US. Forty foreign certification bodies are accredited, meaning that the products they certify, regardless of where they’re produced, can be imported and labeled as USDA organic. The USDA also grants foreign governments the ability to accredit certification agencies to USDA standards. This requires the USDA to ascertain that the foreign government’s assessment of certification agencies is trustworthy and technically sound. Thus, certifiers are “approved” but not directly accredited by the USDA. Finally, the USDA can grant (but has not yet done so) equivalency to another country’s organic standards.

¹² For a discussion of import and trade mechanisms see Commins and Wai, 2003; and Bowen, 2004.

¹³ Commission Regulation (EC) No 345/2008. Countries listed in Annex 1. The list specifies approved regions, production units and inspection bodies within these countries.

¹⁴ Council Regulation (EC) No 834/2007, Articles 32-33.

The current complexity of these trade pathways reduces efficiency (OTA, online), leads to the proliferation of “back door” tactics to move goods (Smillie, 2003), increases policy rents as producers must seek multiple certifications to gain access to different markets, and has been described as a “nightmare” for producers in developing countries who often do not have the technical or financial capacity to maintain multiple certifications (Raynolds, 2004; Courville, 2006). Governments have not recognized private multi-lateral agreements, such as the one that exists among IFOAM accredited certification bodies. There is also persistent confusion about the respective roles that should be fulfilled by the private sector and the government sector relative to organic standards and conformity assessment (Bowen, 2002).

C. International Processes and Institutions

Achieving harmonization across the EU and US – let alone other jurisdictions -- is a vexing problem, for it must address not only substantive standards, but also “conformity assessment systems,” that is, the mechanisms within each jurisdiction of assessing operators against substantive standards. International institutions and processes will likely be critical in achieving a more harmonized global system. The Technical Barriers to Trade Agreement at the World Trade Organization (WTO) calls on governments to use existing international definitions to harmonize standards across all WTO members¹⁵ (officially, organic standards fall outside of the WTO Agreements because they’re voluntary) (Dröge, 2001). Harmonization to existing international standards, not just direct equivalency between US and EU standards, would help equalize access for developing country producers.

¹⁵ The TBT requires WTO Member States to use international standards where they exist, or “the relevant parts of them, as a basis for their technical regulations except where such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climactic or geographic factors or fundamental technological problems.” TBT Article 2.4.

The Codex Alimentarius Commission is one important source of international organic standards.¹⁶ The Codex standards are not binding in any way, but in 1995 they took on new legal importance within international trade law: the WTO Sanitary and Phytosanitary (SPS) and TBT Agreements explicitly designate the Codex as a legitimate source of food standards, so that countries that use Codex standards are safe from legal challenge (Winickoff and Bushey, 2009). Aiming to facilitate the harmonization of organic standards at the international level in order to promote free trade, prevent misleading claims, and ensure fair trade practices, the Codex issued its own guidelines on organic in 1999. The Codex standards incorporate criteria from both the US and EU (DiMatteo, 2008). However, since the standards emerged well after both the EU and the US frameworks were in place, they have done little to harmonize the two systems (Bowen, 2004). For instance, Codex sides with the EU on the contentious issue of livestock (Riddle, 2008). The Codex *has* been influential in Japan, a third leader of organic regulation and production (Bowen, 2004).

Codex procedures recognize the work of non-governmental organizations (NGOs) and direct Codex to publish its standards alongside private international standards whenever practicable (Vaupel and Rundgren, 2003), but the role of private sector actors is not formalized. IFOAM and other NGOs can be granted observer status at Codex proceedings by being “recognized by a government agency having jurisdiction” (Courville, 2004), and can consult with governments, but have no decision making power in Codex negotiations.

Given that governments have direct say in shaping the Codex standard, they are more likely to recognize it as a legitimate international standard against which to harmonize than the IFOAM standards. If adoption of Codex-based standards by nations commenced, the end result would be similar to the IFOAM regional approach, in that diverse standards around the world would be linked by a common international standard. This would allow for relatively easy judgments of equivalency (Courville, 2004)

The IFOAM Basic Standards (IBS) are another promising institutional model to promote harmonization. They carefully negotiate the path between general and specific,

¹⁶ Codex was established in 1962 as a joint FAO/WHO intergovernmental body with the objective of protecting consumer health and facilitating international trade in food through the harmonization of food standards on a worldwide basis.

allowing regional variation while preserving legitimacy and trust. The IBS provide a framework for certification bodies and standard-setting organizations worldwide to develop standards that take into account local conditions while meeting or exceeding the IBS (Commins, 2003). Variations on the IBS can be based on fundamental climate conditions, geographical conditions, technical problems, economic problems, regulatory conditions, cultural factors as well as conditions where organic agriculture is just beginning or has not developed sufficiently (Crucefix, 2007).

The IFOAM Accreditation Program has accredited over thirty different certification bodies whose network has begun to streamline trade. Certifiers must meet the IFOAM Basic Standards and comply with the IFOAM Accreditation Criteria. These Criteria are based on elements of the ISO Guide 65 for certification programs, and they contain other criteria specific to organic inspection and certification (Bowen, 2002). The IFOAM Accredited Certifiers grant each other functional equivalence through a Multi-Lateral Agreement (MLA), thereby accepting products certified by one another despite differences in standards (Commins, 2003).

IFOAM decision-making is not integrated with government institutions, therefore the IBS have less purchase as a baseline standard for governments to develop or judge equivalency. However, the IBS represents an open, consensus-building process involving a wide range of stakeholders interested in the development of organic farming including producers, consumers, advocacy groups, scientists, and educators (Bowen, 2002). In this respect, IFOAM is uniquely placed to maintain and revise international organic standards, drawing on the expertise and knowledge of its members and other interested parties (Courville, 2006).

IFOAM has again taken the lead in constituting organic in the international sphere by initiating a task force on harmonization in collaboration with the FAO and UNCTAD. The International Task Force on Harmonization (ITF) has initiated research and convened stakeholders since 2002 to identify challenges and opportunities for harmonization of organic. Their work has included examining and developing common definitions, developing a database system for cross-referencing comparisons of different organic standards, and a comparative analysis between IFOAM, Codex Alimentarius, EU, US, and Japanese regulations (ITF, 2008). The principal outcomes of the ITF

process are two regulatory tools: EquiTool – an international guideline for determining equivalence of organic standards, and the International Requirement for Organic Certification Bodies (IROCB) – a reference for determining the equivalence of requirements for organic certification bodies.

IV. CONCLUSION AND RECOMMENDATIONS

Considering the deep cultural specificity of food and food regulation, organic has achieved striking success as a regulatory category. For this reason, along with its explicitly environmental dimensions and international reach, organic creates both a regulatory paradigm and landscape for the development of future eco-labels. Hot button food issues have cleaved to well-known divides between the US as a product-based and technology-embracing regulatory culture, and the EU as a process-based and precautionary one. In the shadow of these controversies, the United States and European Union, along with other key actors, have been working to achieve harmonization of organic standards. Although relatively minor differences persist across the two jurisdictions and present continuing difficulties for harmonization, organic is interesting for theories of trans-Atlantic regulatory culture precisely because these cultures converged to recognize similar process-based and precaution-based standards.

The relatively small amount of trade in organic across the Atlantic means that the potential gains of preserving technical barriers to trade are much more limited than for conventional agriculture. This, and the fact that the organic regime involves voluntary and positive labeling, rather than bans, helps explain why organic regulation has been less controversial than that of GMOs and beef hormones. However, as we have suggested, relative convergence was far from a pre-determined outcome; it depended critically on particular modes of engagement with movement actors and standards in each jurisdiction. Relative convergence in organic stems from the historical roots and structure of the organic movement and the ability of a broad base of organic actors to influence regulation in both jurisdictions. For more than fifty years, the definition of organic co-evolved with practices of standardization and certification and moved from the ground up. Organic ideals and actor-networks formed simultaneously across different

states and localities, laying the groundwork for a transnational social movement that actively developed common principles and standards. Striking differences in the articulated goals of organic food regulation as well as well-known differences in regulatory epistemology – i.e., around the use evidentiary presumptions, problem framing, etc. -- set organic regulation on different trajectories in the EU and the US. Polarization was averted due to the ability, ultimately, of movement actors to influence both sets of regulations, albeit through different means. While a few important substantive criteria of the standards diverge across the US and EU, the two regulatory systems have converged around core organic standards.

Although regulatory polarization was averted, small but recalcitrant differences have inhibited the achievement of an efficient and market-promoting equivalency. Although the US and EU have great potential for harmonization, equivalency negotiations have foundered on issues related to the farm unit, the notion of negative versus positive approval on input lists, a number of specific inputs, and the criteria for livestock operations. The complexity of international accreditation that has emerged in lieu of equivalency across the two jurisdictions and elsewhere adversely affects the development of organic markets and trade. The result is an increasingly chaotic system for trade of organic products that erodes efficiency, proliferates “back door” tactics to move goods, and increases policy rents. The lack of US-EU equivalency has created important equity concerns across North and South as well: lack of harmonization is especially costly for developing country producers who often lack technical or financial capacity to pursue multiple accreditations, certifications, and approvals for exportation.

The comparative analysis of organic in each jurisdiction, and of existing efforts at harmonization, give rise to a number of policy recommendations. These apply both to future organic harmonization efforts as well as to future co-operative efforts on other environmental labeling schemes.

1. First, the EU and US should recommence equivalency negotiations with an eye toward underlying organic principles. A good deal of the differences between the US and EU standards are a result of regional ecological and geographical variations as well as cultural differences in the interpretation of

organic principles (Earley, 2006). Given that the organic approach to agriculture is sensitive to ecological specificities, some regional variance is expected and should be accommodated. The US and EU would do well to identify which criteria differ due to ecological or cultural differences, yet still preserve fundamental organic principles. Specific focus should be placed on the three main impasses discussed above, the approach to the farm unit, the lists of prohibited and allowed inputs, and criteria for livestock operations. Identifying regional variations acceptable to all stakeholders could allow regional specificity against the backdrop of a broad international standard (Scialabba, 2003). The International Task Force on Harmonization could provide technical assistance in this regard. Key actors involved in international standardization agree that this could be a vital mechanism for achieving equivalency (Baker, 2008; DiMatteo, 2008; Riddle, 2008).

2. Second, the EU and US equivalency negotiations must proceed alongside a continuing process to promote a globally harmonized system that integrates public and private institutions. The stakes of not reaching equivalency are potentially high for both environmental and development goals: the regulatory patchwork maintains significant impediments to market development and differentially harms producers in developing countries with fewer resources to cope with multiple bureaucratic systems. Harmonization efforts must build upon important work that has occurred in international bodies and fora -- especially Codex, IFOAM, and ITF -- and work robustly between public and private actors.

Both Codex and IFOAM have inbuilt processes for democratic and transparent revision and change. Either could be used as a harmonized standard, but each is driven by different sets of actors -- national governments in the former and private organizations in the latter. Public-private participation should be improved in decision-making for both Codex and IFOAM in order to increase communication and cooperation between governments and private sector institutions.

The ITF process enjoyed broad legitimacy among global organic actors because of its close association with IFOAM, and it developed key insights that will be useful in harmonization efforts. However, there is concern that the work of the ITF will not gain traction without directly engaging with governments, now the major definers of organic in the global sphere (Riddle, 2008). Therefore, a stronger bridge must be made between the private sector efforts of IFOAM and ITF and public institutions such as Codex and state governments. Linking a new series of ITF efforts through Codex would be one way to bring governments directly into the productive process initiated in 2003 by the ITF.

3. A third and related point focuses on legitimacy and the role of non-state actors. With its close connection to environmental social movements, organic is politically charged. If harmonization results in a decline in consumer trust in organic, it will be self-defeating. As a general matter, governments should take seriously the involvement of movement and industry actors in the development and revision of organic standards: indeed, connection to the organic social movement was a major factor in the “relative convergence” of the US and EU systems. Furthermore, the high level of consumer buy-in maintained by organic labels stems from the fact that institutionalized organic standards have emerged from a bottom up process. Accordingly, public participation mechanisms should be formalized in the harmonization processes proposed above, and would be a vehicle for synthesizing private and public standards.
4. Finally, as the first successful agricultural eco-label, the history of organic regulation carries lessons for future eco-labels related to biodiversity, carbon footprint, biosafety, and other environmental issues. The previous point about developing open and consensus-driven procedures applies more generally for emergent forms of voluntary eco-labeling. Like organic, new eco-labeling systems will likely be voluntary and emerge from private networks of

consumers and producers. We have already seen this with other labeling programs such as fair trade, the Forest Stewardship Council, and Marine Stewardship Council. The state should enter with extreme caution and only with deep participation of movement actors. For state oversight of voluntary eco-labeling programs, procedures should include all types of stakeholders interested in the development of the eco-label, including producers, certifiers, consumers, advocacy groups, academics, scientists, etc. Government's role should primarily be in the area of consumer protection and preventing fraud. As labels develop, state oversight of labeling claims becomes important to prevent abuses, but also threatens to make standards less flexible and internationally mobile. International convergence is more likely to occur on less contentious issues where the balance of trade implications are not as pronounced. Such conditions present low hanging fruit to motivate greater EU-US cooperation on environmental regulation.

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