

CHAPTER 5



Credibility in Carbon Neutral Eco-Labeling

Greenhouse gas (GHG) emissions from the burning of fossil fuels have been rising steadily since the Industrial Revolution. GHGs trap solar energy in the atmosphere and radiate it back toward the Earth causing higher surface temperatures and catalyzing a host of other environmental problems. Climate change, in a biophysical sense, is therefore an incredibly complex problem. Governing global GHG emissions has proven no less complicated. Fossil fuels are locked into nearly every part of the global economy (Unruh 2000, 2002). Decarbonization therefore requires transformative change to economic systems at multiple levels (Bernstein and Hoffmann 2018). Moreover, climate change is a “super wicked problem” insofar as the time for action is running out, those who cause the problem also seek to provide a solution, little central authority exists with which to address it, and irrational discounting pushes response into the future (Levin et al. 2012, 124).

Perhaps for these reasons, state-led efforts to address climate change have proceeded slowly and with little discernible improvement to atmospheric GHG concentrations. The 196 parties to the UNFCCC have repeatedly attempted to create national GHG inventories and commit to universal or nationally determined reduction targets, first through the 1997 Kyoto Protocol and more recently through the 2015 Paris Agreement. While the latter effort successfully brought the world’s largest emitters back to the negotiation table, the reductions pledged through its Intended Nationally Determined Contributions remain well short of the levels required to stabilize global mean temperature increase below the agreed-upon two degree Celsius threshold (Rogelj et al. 2016).

Even if the Paris Agreement can be strengthened over time, it remains unclear whether a multilateral approach is the best solution to curbing the rise of global emissions. A key problem is that states themselves do not, for the most part, create GHG emissions—businesses and individual behaviors do. In a globally integrated economy, few businesses concentrate their carbon-intensive activities in a single country. Both production and the emissions thereby produced are spread across GVCs. While states can regulate emissions within their own borders, there is little they can do to prevent businesses from shifting carbon-intensive activities to other countries. In this sense, domestic inventories and national reduction targets are limited in their ability to prevent rising global emissions. Indeed, in many post-industrial countries, it is inaccurate to suggest that domestic production accounts for the majority of GHG emissions. In the UK, as in many developed countries, “GHG emissions arising from consumption of goods and services are greater than the emissions actually produced in the country” (The Carbon Trust 2008a, 2).

A key challenge in reducing global emissions is therefore governing GVCs. Of course, this is a task to which states are uniquely unsuited since their ability to create and enforce rules beyond their territorial boundaries is limited by the need to cooperate with other states. In the absence of a strong and universal agreement on how to regulate global businesses, negotiations in multilateral fora will continue to proceed haltingly. This creates a modest governance vacuum in which TNG can play a larger role, and carbon reduction and carbon neutrality labels for organizations and products are two notable examples of climate change TNG.

This chapter further tests the aiming big hypothesis developed in chapter 3 as well as alternate hypotheses explored in chapter 2 by investigating the differences between transnational carbon labeling organizations. As with aquaculture, carbon labeling is ideally suited for testing hypotheses about procedural rigor and credibility in transnational eco-labeling more broadly. ELOs that create and manage carbon neutral or carbon reduction labels are representative of the broader population of transnational ELOs insofar as they are owned by both public and private organizations, operate as for-profits and not-for-profits, and originate in a variety of countries around the world. They also vary widely in their adherence to best practices, with some falling above the average IBP score and others falling well below it.

Here again, I argue that this variation is best explained with reference to the targets of governance. Among carbon-labeling ELOs,

those that target global markets or aim to certify large multinational corporations—in short, those that aim big—are most likely to adhere to best practices. I arrive at this finding by using an identical methodological approach to that employed in chapter 4. First, I use within-case process tracing to ascertain which conditions or factors temporally preceded the decision to adhere to best practices in my two positive cases and which conditions led ELOs to disregard best practices in my two negative cases. Here again, I find strong evidence that the decision to certify products for large, multinational retailers and expand into foreign markets precipitated a heightened attention to best practices in the two highly best practice adherent ELOs (Enviro-Mark Solutions and The CarbonNeutral Company). Next, I use cross-case comparison to ascertain which conditions present in my positive cases were absent in my negative cases. Here, I find that when the ambition to aim big was lacking or constrained by broader structural conditions, as it was in my two negative cases (The Carbon Trust and Carbonfund.org), adherence with best practices was much lower.

I do not find strong evidence in support of alternate hypotheses. Notwithstanding the salience of the public ownership in my statistical results, my findings indicate that aiming big exerts a pull toward best practice adherence over and above any explanation derived by analyzing an ELO's connection to the state. I reach a similar conclusion on the for-profit versus not-for-profit distinction. As in the preceding chapter, the data in this chapter comes from extensive primary document review and web-based archival research as well as targeted key informant interviews with ELO personnel and persons with sector-wide expertise. My interview strategy parallels the one used in the previous chapter, first asking broad questions about what drives best practice adherence and then gradually moved to probe some of the more promising statistical findings specifically.

I begin by mapping out the current carbon labeling landscape and providing background information for each of my four cases. Next, I outline where and how they differ in terms of their commitment to best practices. I then process trace the evolution of each ELO and show the causal effect of aiming big on best practice adherence with reference to my hypothesized causal mechanisms. I conclude by summarizing the chapter's findings and assessing the implications of mandatory carbon labeling for the credibility of certification schemes.

THE ECO-LABELING LANDSCAPE IN CARBON NEUTRALITY AND CARBON REDUCTION

Carbon reduction and carbon neutrality labels are but two types of carbon labels within a broader typology of carbon-related standards and certifications. All share a common goal of seeking to modify consumer choices while simultaneously encouraging firms to identify efficiencies throughout their value chains (Vandenbergh, Dietz, and Stern 2011). Nonetheless, they also vary widely in which information they disclose and who or what they certify. Thus, a necessary first step in assessing the landscape of carbon labeling schemes is to specify what types of schemes are being compared.

Carbon accounting standards quantify the amount of GHG emissions associated with a given product or organization, however they rarely employ a single consumer-facing label and therefore are outside the scope conditions for this study. Carbon offset certifications verify the authenticity of projects that create carbon credits through investments in renewable energy, reforestation, energy efficiency, or other carbon reducing schemes. However, these standards are largely used on a B2B level and therefore also fall outside of the scope conditions for this study. Carbon neutral or carbon reduction labels incorporate aspects of one or both of these standards. They are consumer-facing labels that certify that an organization or product has measured, reduced, and—for carbon neutral labels, offset—their GHG emissions. ELOs that own and operate carbon reduction or carbon neutrality labels are the focus of this chapter.

Both carbon reduction and carbon neutral labels essentially declare that a company or product is committed to mitigating its carbon emissions, albeit in different ways. Carbon reduction labels indicate that a company or product is undertaking measures to reduce its emissions. To attain such a label, organizations usually must establish a baseline of carbon emissions through the use of an accepted carbon accounting standard, outline a strategy to reduce those emissions, and submit both their annual carbon footprint and emission reduction plan for audit by an independent, neutral third party. Carbon neutral labels take a similar approach but add an additional step, requiring the purchase of carbon credits to offset any emissions that cannot be eliminated. In this way, carbon neutral labels suggest that an organization, or one of its products or services, has no net impact on the climate (Forum for the Future and Clean Air–Cool Planet 2008, 2).

While the process for claiming carbon reductions or neutrality may appear relatively straightforward, in practice, making a credible claim involves a myriad of decisions that may render an eco-label more or less

credible. For example, what should be counted in determining an organization or product's carbon footprint? Should only direct emissions caused through operations be measured or should indirect emissions from value-chain partners or product/service usage also be included? How is carbon neutrality achieved? Does it require internal reductions in a company or product's GHG emissions or can it be achieved solely through offset purchases? If the latter, what rules are in place to ensure that the offset credits are credible and additional? But while inherently more technical than sustainable aquaculture certification, the tenets of best practice in carbon labeling are no less relevant.

Consumer-facing carbon labels have lost some traction in recent years,¹ but four ELOs maintain transnational presence in this space. They are Enviro-Mark Solutions, The CarbonNeutral Company (TCNC), The Carbon Trust, and Carbonfund.org. Enviro-Mark Solutions is a wholly owned subsidiary of Landcare Research, one of New Zealand's crown research institutes (CRIs). Both Enviro-Mark and its parent organization are headquartered in Lincoln, New Zealand, about 22km southwest of Christchurch. Enviro-Mark owns and operates two carbon labeling programs, the Certified Emissions Measurement and Reduction Scheme (CEMARS) and carboNZero certification. The carboNZero program was established in 2001 by researchers at Landcare Research as part of a broader national initiative "to improve the measurement and mitigation of greenhouse gases from the terrestrial biosphere" (Landcare Research n.d.). CEMARS followed in 2008, designed for businesses that wanted certification for their GHG management without purchasing offset credits. Following some internal reshuffling, both labeling programs were placed under the direct control of an independent body named Enviro-Mark Solutions in July 2013. While Enviro-Mark is nominally independent, its parent organization Landcare Research is owned by and accountable to the government of New Zealand. Its major shareholders are the Minister of Finance and Minister of Science and Innovation. Enviro-Mark is therefore representative of a public eco-labeling organization.

Enviro-Mark's two eco-labeling programs are similar in many respects but differ on who and what they certify. CEMARS certifies organizations for credible carbon measurement, management, and reduction strategies. To win an eco-label, organizations must measure their carbon footprint, develop a carbon reduction strategy, and demonstrate either absolute or relative reductions to their GHG footprints over time. CarboNZero certifies measurement, management, and reduction for both organizations and products, but adds the additional step that clients must offset their remaining emissions through the purchase of verified carbon offsets. Both

eco-labels are only awarded after the measurement, management, and reduction steps are validated by an independent, third-party auditor.

CEMARS and carboNZero certifications are currently available in over seventeen countries worldwide and recognized in over sixty. Enviro-Mark certifies clients in New Zealand, Australia, Chile, the UK, and the United Arab Emirates (Enviro-Mark Solutions 2015). According to the program's website, to date it boasts: 2,500 certificates issued, 182.8 million tons CO₂-e verified footprints, and 631,800 tons CO₂-e offset by its clients (carboNZero 2018). The CEMARS program has been particularly successful in penetrating the UK market, where its customers include the Department of Food and Rural Affairs (Defra), the Scottish Parliament, EuroStar, and "at least 20 of the top construction companies" (Landcare Research 2014, 49). Of the four ELOs examined in this chapter, Enviro-Mark is one of the largest in terms of its transnational market share.

TCNC is a for-profit firm headquartered in London and New York that offers consulting services for "companies committed to reducing their environmental impacts with solutions that strengthen their business" (The CarbonNeutral Company 2015c). TCNC was founded in the UK in 1997 under the name Future Forests, which reflected its initial strategy of offsetting carbon emissions through tree planting and afforestation schemes. In 2006, the company re-branded as TCNC, reflecting its move away from forestry-based offset credits and into a broader portfolio of carbon offsetting activities. TCNC is therefore a typical example of an entrepreneurial, for-profit ELO.

TCNC offers a full suite of services to business customers, including retail carbon offsets, GHG measurement and accounting, and green power and water benefit certificates. However, it is perhaps most widely known for offering carbon neutral certification and labeling to organizations, products, events, and services. TCNC is a pioneer in this realm. It developed and published The CarbonNeutral Protocol in 2002, the world's first standard for making credible, carbon neutral claims (The CarbonNeutral Company 2015c). Organizations, products, or events may become certified to the carbon neutral standard by measuring their GHG emissions using an accepted carbon accounting standard, having this footprint verified by an independent, qualified, TCNC-approved third party, and then reducing their emissions through a combination of voluntary internal reductions and carbon offset purchases. TCNC is a mid-sized organization employing roughly 30 people, the majority of whom are based in London. According to TCNC: "since 1997 it has contracted more than 14 million tons of carbon (tCO₂e (Carbon Dioxide Equivalent)) reductions from more than 290 projects across six continents" (The CarbonNeutral Company 2015b,

2). As of 2015, the organization's revenues are around 50 million USD (The CarbonNeutral Company 2015a). While it does not boast as much CO₂e under management as one of its competitors, The Carbon Trust, TCNC has perhaps the broadest transnational presence of any of the carbon labeling ELOs. It counts numerous large multinational retailers in its client base, including Avis, Microsoft, and Coca Cola.

The Carbon Trust was created in 2001 as an independent, not-for-profit organization tasked with "accelerating the move to a sustainable, low carbon economy" in the UK (The Carbon Trust n.d.). Although operating at arm's length from government, The Carbon Trust initially received the majority of its funding from the UK, Welsh, and Scottish governments. Following severe government budget cuts in 2011, the organization increasingly turned to the global private sector for investment and certification revenues. In service of this goal, it recently acquired offices in China, South Africa, Mexico, and the United States. The Carbon Trust's ownership structure is unique insofar as it has evolved from being a hybrid public-private organization to a free-standing and entrepreneurial non-profit ELO today.

The Carbon Trust engages with businesses in a number of ways. It provides advice and financing to help businesses reduce GHG emissions, offers venture capital to emerging low-carbon companies, and leads industry collaboration to finance and commercialize low-carbon technologies. However, one of its most ambitious and public-facing mandates is to develop carbon-reducing standards. The Carbon Trust owns and operates several types of standards including a product-level carbon footprint label that verifies and communicates the lifecycle GHG emissions of a particular product, as well as waste and water standards, which certify organization-wide reductions in waste production and water usage, respectively. However, its most widely used and recognized eco-label is The Carbon Trust Standard for Carbon, which was launched in June 2008 and certifies that organizations are acting to reduce their carbon footprint year over year. In order to achieve the Carbon Trust Standard, organizations must demonstrate that they have calculated an accurate baseline carbon footprint, reduced carbon emissions in subsequent years, and implemented sound governance of their energy management policies. Certification to The Carbon Trust Standard is performed by an assessor employed by The Carbon Trust. From its launch in 2008 until March 31, 2014, roughly 1,156 Carbon Trust Standard certificates were awarded to 713 organizations around the world, representing some 727 million tons of CO₂e under management (The Carbon Trust 2014, 10). While the Carbon Trust Standard has penetrated the UK market, its use remains limited overseas. The Carbon Trust is one of

the larger ELOs in terms of volume of emissions certified, but smaller than Enviro-Mark Solutions and TCNC in terms of transnational market share.

Lastly, Carbonfund.org is a charitable 501(c)(3) not-for-profit organization founded in 2003 and based in Bethesda, Maryland. Its Carbonfree product certification was the first carbon neutral label in the United States. The organization certifies carbon neutrality for organizations, events, products, and services principally through the acquisition of carbon offset credits. It retails offset credits from both US and international projects, including truck-stop electrification projects in the US and mangrove reforestation initiatives in India. In recent years, the organization has moved in a different direction by acquiring Camp Quinebarge, a co-ed summer camp and environmental education center in New Hampshire. It also founded CarbonCo LLC in 2011, a wholly-owned subsidiary that develops carbon reduction projects under the Reducing Emissions from Deforestation and forest Degradation (REDD+) framework. Carbonfund.org is not supported by any existing ENGOs and is therefore representative of an independent, entrepreneurial not-for-profit ELO.

Carbonfund.org owns and operates the Carbonfree Partner and Carbonfree Product programs which designate as carbon neutral organizations and products, respectively. Organizations are certified as Carbonfree Partners through a simplified GHG accounting exercise and the purchase of offset credits. Products undergo a more rigorous life cycle analysis (LCA) before offsetting their emissions quarterly based on sales volumes. In comparison to the other ELOs studied in this chapter, Carbonfund.org is quite small. Its total revenues in 2013 were just 2.2 million USD (Carbonfund.org 2013a). According to its 2013 annual report, Carbonfund.org has reduced roughly 2.9 million tons of CO₂e to date, fewer than either TCNC or The Carbon Trust (Carbonfund.org 2013b). The majority of its customers are in the United States; Carbonfree certification and labeling lacks broad presence overseas. In terms of both transnational market share and volume of CO₂e certified, Carbonfund.org is the smallest of the four ELOs studied here.

THE CREDIBILITY GAP: EXPLORING DIFFERENCES BETWEEN CARBON LABELING ORGANIZATIONS

The four ELOs just described differ significantly in their level of adherence to best practices. Two (Enviro-Mark Solutions and TCNC) fall above the mean score for best practice adherence in the broader population of 123 ELOs analyzed in chapter 2, while two (Carbonfund.org and The Carbon

Trust) fall below it. A summary graph of how each ELO performs on the IBP as a whole and across the ten IBP categories is presented in figure 5.1.

Of the four carbon labeling ELOs, New Zealand-based Enviro-Mark Solutions follows best practices most closely with a cumulative IBP score of 0.79. In relation to the population of transnational ELOs observed in chapter 2, this puts Enviro-Mark in the top 12%. Behind Enviro-Mark, TCNC is the second-most adherent to best practices in this sector, with an IBP score of 0.62 across all categories. In third place is The Carbon Trust, which scores 0.46, and in last place is Carbonfund.org with 0.42. Both The Carbon Trust and Carbonfund.org score below the mean IBP score for the broader population of transnational ELOs captured in my dataset, while Enviro-Mark and TCNC score above it. The average IBP score for this sector is nearly identical to the average IBP score in the broader population, suggesting that carbon labeling organizations are fairly typical in their level of attention to procedural credibility. However, as in the preceding chapter, much can be learned by examining the qualitative differences between organizations on the various dimensions of best practice adherence. One note of caution applies to the comparisons that follow: they reflect the state of ELO practices in 2013 when this study was conducted. Some of the

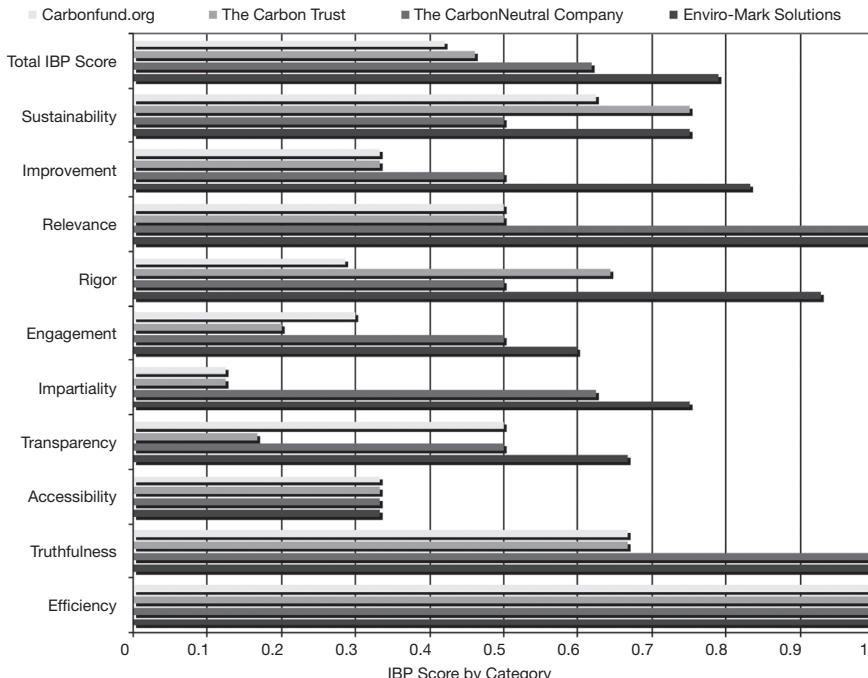


Figure 5.1 Comparison of carbon labeling ELOs on total and category-specific IBP scores

ELOs may have modified their practices in a way that would affect their IBP scores since that time.

Sustainability

Best practices related to sustainability ensure that ELOs clearly define their environmental objectives and advance strategies to achieve them. The four carbon labeling ELOs differ modestly in this category. Each of the organizations presents a clear set of objectives, albeit with variation on how relevant the objectives are to achieving broader environmental goals. TCNC is the most opaque in this regard, stating somewhat ambiguously that its mission is to “be the trusted partner to companies committed to reducing their environmental impacts with solutions that strengthen their business” (The CarbonNeutral Company 2015d). Some variation also exists on the quality and specificity of strategies in place to achieve environmental objectives. Neither Carbonfund.org nor TCNC publicly offer any document outlining their short- or long-term strategies for achieving their environmental objectives. The Carbon Trust outlines a clear strategic vision that includes expanding its service offerings and extending its geographic reach, however these strategies are more directed at its economic viability than its environmental mission (The Carbon Trust 2014, 20). Enviro-Mark’s parent organization Landcare Research details an elaborate strategy for achieving its environmental goals as a CRI, however few of these objectives are specific to the Enviro-Mark standards. Significantly, none of the four ELOs currently possesses a robust M&E system to assess environmental impacts. All four only track rudimentary measures like the quantity of carbon dioxide emissions under management and the number of entities certified. Thus, there is room for across-the-board improvement on practices related to impact monitoring.

Improvement

Best practices related to improvement mandate that ELOs continuously seek to improve their standards through regular reviews, by integrating learning from M&E programs, and by keeping firms certified to the latest version of their standards. Enviro-Mark Solutions outperforms its competitors by a significant margin in this category while TCNC also demonstrates above-average performance. Both ELOs offer a clear timeline for when their standards are revised and improved. Enviro-Mark’s CEMARS

and carboNZero standards undergo a major review cycle every three to five years while minor updates are made as needed in response to changes in associated GHG accounting and offsetting standards. Similarly, TCNC's CarbonNeutral Protocol undergoes an annual development cycle with input from multiple stakeholders (The CarbonNeutral Company 2015b, 4). Conversely, neither Carbonfund.org nor The Carbon Trust specify a clear timeline for review and improvement of their standards. Indeed, the last version of the Carbon Trust Standard Rules appears to have been updated in 2010. ELOs also vary in how they ensure compliance with the most recent version of their standards. Of the four ELOs, only Enviro-Mark mandates a two-year transition period to come into compliance with its latest standard. By comparison, TCNC notes that "CarbonNeutral® certifications made in accordance with previous versions of The CarbonNeutral Protocol are not retroactively affected by subsequent changes to The CarbonNeutral Protocol" (The CarbonNeutral Company 2015b, 1). Lastly, while each of the ELOs acknowledges the need to improve standards in line with observed environmental impacts, none of them has a clear strategy in place to do so.

Relevance

Best practices related to relevance mandate that ELOs develop standards that address the most pertinent environmental impacts of a product or business, mitigate any risks associated with the use of their standards, and ensure that their standards are appropriate for local conditions.

A considerable gulf separates Enviro-Mark and TCNC from their competitors on practices related to relevance. Both organizations are particularly adept at ensuring that the carbon accounting procedures included in their standards are geographically relevant and capture emission sources specific to an organization or product location. For example, whereas Enviro-Mark and TCNC have clear policies in place to define what types of geographically relevant secondary data can be used to calculate an organization's carbon footprint, Carbonfund.org and The Carbon Trust do not. Carbonfund.org calls on firms to use best available evidence taking "geographical relevance" into account, however it leaves this term undefined (Carbonfund.org n.d.). The Carbon Trust also prioritizes national data sources in some cases, such as emissions factors, but not others, such as biofuels and biomass (The Carbon Trust 2010). As such, carbon footprints may be less relevant or inaccurate for certain regions.

Further variation exists around the degree to which ELOs acknowledge and plan for risks inherent in implementing their standards. Many

of these risks pertain to carbon offsetting. Offset projects face the twin risk of involuntarily aggravating other environmental or social problems (e.g., by shifting carbon intensive industries to another region) or failing to generate genuine carbon reductions. Here again, Enviro-Mark and TCNC distinguish themselves by acknowledging these risks and presenting clear strategies to mitigate them. Enviro-Mark solutions addresses the risk of certifying “hot air” by adding additional criteria to existing carbon offset standards. For example, it refuses to buy certain credits certified under either the Verified Carbon Standard (VCS) or the Gold Standard because they do not meet Enviro-Mark’s own internal criteria for additionality (contributing GHG reductions that would not have occurred in the absence of the offset project). In a further effort to mitigate the risk of unintended environmental consequences, Enviro-Mark’s standard documents mandate that certified companies “document any conflicts between GHG emissions reduction activities and other environmental commitments” (Enviro-Mark Solutions 2013, 22). Similarly, TCNC discloses the risks of its offsetting operations in relation to the ten United Nations Global Compact (UNGC) principles and documents the measures it has taken to address these risks (The CarbonNeutral Company 2015a). In this regard, these two ELOs differentiate themselves from Carbonfund.org and The Carbon Trust, neither of which present a clear strategy to manage the risks associated with their standards beyond referring to vague quality assurance protocols.

Rigor

Best practices related to rigor ensure that ELOs set the level of achievement in their standards appropriately high and possess robust compliance monitoring systems that provide an accurate picture of whether certified firms or products meet their standards. Enviro-Mark once again leads the field on practices in this area, while the remaining ELOs differ modestly on a number of specific criteria. For instance, all four ELOs state that they employ independent experts in standard setting and revision, although only Enviro-Mark and TCNC are completely transparent about who these experts are. All four ELOs also present clearly written and specific standards, however Carbonfund.org’s CarbonFree Product Standard lacks guidance and interpretation for a number of points that are covered in more detail in other standards (e.g., accounting for emissions from renewable energy, recycled wastes, leased assets, and air travel). While all employ independent auditors, training and accreditation of auditors for The

Carbon Trust and Carbonfund.org is vague. Lastly, all except Carbonfund.org conduct routine audits of certified firms or products.

The ELOs differ more markedly on incorporating clear and measurable progress indicators in their standards. While Carbonfund.org and TCNC suggest that certified companies develop plans to reduce their GHG emissions internally (without offsets), only Enviro-Mark and The Carbon Trust set measurable targets for internal emissions reductions. Similarly, Enviro-Mark and The Carbon Trust require site visits to verify that certified organizations have implemented an emissions reduction plan. These two ELOs also stand apart in setting clear consequences for non-compliance with their standards. On this point, Enviro-Mark leads the pack in laying out clear guidelines for suspension from the program if certified organizations fail to meet measurement, management, or emissions reduction criteria.

Engagement

Best practices related to engagement ensure that ELOs provide meaningful and accessible opportunities for stakeholders to participate in all aspects of standard setting and ELO governance. Here we once again find a considerable gap between Enviro-Mark and TCNC and their competitors, with both offering a clear pathway for stakeholder engagement in standard-setting or revision and in certification procedures, unlike Carbonfund.org and The Carbon Trust. While Carbonfund.org suggests a commitment to ensuring its CarbonFree Product Protocol is updated with input from external stakeholders, no public information is presented to explain how stakeholders can get involved. Similarly, The Carbon Trust suggests that its standards are developed through consultation with external stakeholders, but provides no clear avenues for stakeholder engagement on its website. Of the four, only The Carbon Trust makes no allusion to accepting public input on its standards. The other three either submit new standards to a thirty-day public comment period or accept public input on an ongoing basis. None of the four provide a work plan for standards under development or revision or provide a record of comments received from stakeholders and how they have been addressed. Enviro-Mark, however, leads the way in allowing stakeholder input into certification decisions. It presents a clear appeals process for organizations or stakeholders that disagree with a certification decision and outlines a robust procedure for how such appeals will be resolved through an escalating series of reviews.

Impartiality

Best practices related to impartiality mitigate against conflicts of interest in standard-setting and conformance assessment and compel balanced representation and complete transparency in governance structures. Here again, a considerable gap exists between the four ELOs. One area of divergence concerns the transparency of their governance bodies. While both The Carbon Trust and Carbonfund.org possess independent advisory panels, they do not provide information on how individuals are nominated to this body nor what ultimate authority they hold over standard content. Conversely, this information is made public by Enviro-Mark and TCNC.

The ELOs also differ in how they separate themselves, legally and financially, from their auditing bodies. Two, Carbonfund.org and The Carbon Trust, conduct audits of certified organizations or products themselves, thereby risking a conflict of interest should they seek to expand logo licensing revenues by certifying organizations or products that would not otherwise merit an eco-label. Carbonfund.org performs audits on product LCAs for its Carbonfree product standard itself. Similarly, The Carbon Trust suggests that audits against the Carbon Trust Standard are provided by an “independent assessor,” but this term is misleading since the assessors work for The Carbon Trust. The decision not to use a third-party auditor has garnered criticism in the past, as when the *Guardian* publicly inquired whether “the Trust should be awarding standards to companies it works for as a consultant” (Moulds 2012). Conversely, Enviro-Mark and TCNC both employ third-party auditors to guard against potential conflicts of interest.

Lastly, the four ELOs can be differentiated by the instruments they use to guard against conflicts of interest in their standard content. Neither Carbonfund.org nor The Carbon Trust publicly disclose a plan for mitigating conflicts of interest, so little prevents the creation of standards that are weak or serve economic self-interest. In fact, in materials requesting affiliates to market its programs abroad, The Carbon Trust notes that “as an Alliance Partner, you will be licensed to market, and assess to, the Carbon Trust Standard in your defined country . . . and *you will share in both the revenue* and achievement of helping organizations reduce carbon emissions” (The Carbon Trust 2012, 2).² The wording here makes the standard sound like a revenue-generating tool as much as an effort to govern carbon emissions. TCNC suggests that it uses its Advisory Forum to ensure the integrity of its business and processes (The CarbonNeutral Company 2015d.), but this body has no formal power over standard development nor is it mandated to have balanced stakeholder representation. Moreover as it is a for-profit entity, there is an increased risk that TCNC will set the bar low

to generate more logo licensing revenues. Conversely, Enviro-Mark has a very strong and elaborate policy for addressing conflicts of interest, which are identified through ongoing risk assessments and reviewed by its senior leadership team and an independent technical advisory panel. Personnel who are involved in verification and certification activities do not engage in consultancy or providing technical advice to clients (carboNZero 2015). Hence, risks to impartiality are moderated to a degree not present in the other ELOs.

Transparency

Best practices related to transparency mandate that ELOs make public the content of their standards, list which firms are certified to their standards, and publicly disclose the audit results of those certified firms. Modest differences exist between the ELOs in this category. Whereas both Carbonfund.org and TCNC make their standards publicly available through their websites, The Carbon Trust and Enviro-Mark do not.³ Some opacity also exists around which companies or products are certified to the various standards. Of the four ELOs, only Enviro-Mark lists all currently valid certificates as well as those that have been suspended or withdrawn. The ELOs also vary in the transparency of audit reports. Carbonfund.org does not publish the results of client footprint audits. Similarly, TCNC and The Carbon Trust do not require that carbon footprints for certified firms be made publicly available but do offer support for certified firms who want to voluntarily disclose their footprints and emissions reduction strategies. Only Enviro-Mark offers comprehensive disclosure statements for all certified entities. These disclosure statements cover many aspects of an organization's carbon footprint and emissions reduction strategy, including its operational boundary, emissions by source, reduction commitments, nature of purchased offsets, data quality, and how long the certification will be valid.

Accessibility

Best practices related to accessibility reduce barriers to certification or participation in standard governance for disadvantaged stakeholders and firms or persons in developing countries. Little separates the four ELOs on practices related to accessibility, with all falling below the average IBP score for this category. None of the carbon labeling organizations publicly

documents efforts to include disadvantaged stakeholders in standard setting or governance nor do they translate their standards into other languages. However, all offer a sliding price scale to allow certification for small and medium-sized businesses. The sub-par performance of all ELOs in this category suggests an area for sector-wide improvement.

Truthfulness

Best practices related to truthfulness ensure that all claims associated with an ELO's standards are clear, precise, encompass all relevant environmental impacts, and are legally protected against unauthorized use. Enviro-Mark and TCNC once again lead the way on practices related to truthfulness. While all four ELOs protect their logos through licensing agreements and use accurate and precise language in claims associated with their labels, there is some variation around whether each ELO takes a holistic view of environmental impacts in setting criteria for certification. A key area of differentiation concerns whether the ELO captures the full scope of an organization's carbon footprint before certifying their ability to reduce or neutralize that footprint. In this regard, both Enviro-Mark and TCNC take a far-reaching and holistic approach, clearly outlining the scope of emissions and defining a comprehensive operational boundary to be included in the footprint. Carbonfund.org is far less comprehensive in its approach. In order to become a Carbonfree Partner organization, clients fill out a work sheet and provide information related to their number of employees, annual electricity use, and business travel. However, there is no clear direction on operational boundary or how emissions from subsidiaries or leased assets are treated. Moreover, footprint calculation is further simplified for smaller businesses. The same worksheet notes: "Businesses with 5 or fewer employees can become Carbonfree with a minimum offset of 35 metric tons (\$350). Businesses with more than 5 employees can become Carbonfree with a minimum offset of 70 metric tons (\$700)" (Carbonfund.org n.d.). In light of these crude carbon accounting procedures, there is little chance that firms are accurately offsetting their real carbon footprint. The Carbon Trust is somewhat more robust in this regard, but nonetheless allows organizations to include only on-site electricity, gas, and fuel consumption in their initial footprints, while disregarding all remaining emissions. In sum, neither organization takes a broad and holistic approach to capturing all relevant GHG emissions prior to certification.

Efficiency

Best practices related to efficiency ensure that ELOs are collaborating with other credible organizations in their field and avoid unwarranted duplication of existing standards. All four ELOs are identical in this category. All demonstrate a willingness to collaborate with other ELOs on credible offset standards and GHG accounting methodologies. Moreover, none can be said to completely duplicate the efforts of others. While TCNC, Carbonfund.org, and Enviro-Mark all certify carbon neutrality for organizations, they each launched independently in different regions. Thus, no duplication can be said to exist.

In sum, Enviro-Mark Solutions and TCNC consistently outperform The Carbon Trust and Carbonfund.org across five of the ten categories of best practice: improvement, relevance, engagement, impartiality, and truthfulness. Both ELOs lead their field on practices related to improvement by regularly revising and updating their standards with a view to continuous improvement. But only Enviro-Mark ensures that certified entities comply with the latest version of its standards. Enviro-Mark and TCNC also outperform their competitors by a wide margin on practices related to relevance, with both ensuring that their carbon accounting methodologies are geographically relevant and proactively address risks inherent in the implementation of their standards. Both also demonstrate above average performance on practices related to engagement, by incorporating clear mechanisms for external feedback into their standard-setting practices. A similar pattern emerges on practices related to impartiality. Enviro-Mark and TCNC maintain complete transparency about their independent advisory panels and employ third-party auditors to assess the compliance of certified entities, whereas The Carbon Trust and Carbonfund.org do not. Finally, Enviro-Mark and TCNC score higher on practices related to truthfulness because their carbon accounting methodologies more accurately capture the carbon footprint of certified entities.

Here again, the puzzle that emerges is how does one explain relatively high levels of best practice adherence in Enviro-Mark and TCNC and below average levels in The Carbon Trust and Carbonfund.org. In the following section, I once again draw on the explanation developed in chapter 3 to explain how differences in the targets of governance ultimately explain adherence, or lack of adherence, with best practices for each ELO.

SIZE, AMBITION, AND PROCEDURAL CREDIBILITY IN CARBON LABELING

Enviro-Mark Solutions

The desire to expand into foreign markets and certify major multinational retailers drives heightened concern for best practices at Enviro-Mark Solutions. Enviro-Mark's signature carboNZero certification evolved from a primarily domestic and informal offsetting initiative to a robust and credible transnational eco-labeling standard. The changes to the program occurred primarily because of a desire to improve transnational market share and attract large corporate clients by insulating the program from critical scrutiny. This has been achieved by pursuing formal accreditation and adding additional layers of diligence to the program in accordance with the risk management strategies of major retail clients. As a result of aiming big, Enviro-Mark increased its revenues and augmented its organizational capacity, thereby allowing it to devote further resources to transparency and program improvement. Therefore in this case, aiming big drives adherence with best practices primarily through indirect critical scrutiny and enhanced organizational capacity.

When the carboNZero program launched in New Zealand in 2001, it was initially targeted exclusively at the domestic market (Landcare Research 2002). Landcare Research, the CRI that founded the program, had a government mandate to restore biodiversity. One of the ways it sought to do so was by paying farmers to conserve pristine habitat on their privately owned land. The carboNZero program was intended to generate carbon credits by removing farmland from agricultural production and selling the resulting offset credits to New Zealand businesses. In the early years, the program was very informal and had only twenty corporate participants between 2001 and 2006.⁴

At the outset of 2006, the program began to attract new clients and undertook its first steps toward strengthening procedural rigor. New Zealand wineries—most of which reached a broader market than carbonNZero's existing corporate participants—approached carboNZero to ask about developing some kind of label in response to customer concerns about “food miles.” The wineries were concerned about their access to foreign markets and specifically that New Zealand wines would be hurt by the distance they traveled to reach retail shelves in Europe (Landcare Research 2007). CarboNZero appeared the natural choice to provide this label, but program employees were concerned about its ability to withstand the public scrutiny that would accompany a move into export markets. As one employee

notes, "I got very nervous about the way the program was run. And I said you can't do that without it being a formal certification scheme. It needs to have third party audits. It needs to be based on a standard."⁵ Thus the initial move to formalize carboNZero certification stemmed from concern for withstanding critical scrutiny brought on by the label's expansion into export markets.

The next step toward increased adherence with best practices came as carboNZero rapidly accelerated growth in 2007. Two external events triggered a sudden and dramatic increase in carbon labeling activities: the release of *An Inconvenient Truth* in June 2006, and shortly thereafter, the publication of the *Stern Review on the Economics of Climate Change* in October of the same year. Building on the sudden salience of climate change, the carboNZero program saw a tremendous upsurge in interest in carbon neutral labeling. Between 2005 and 2008, the program grew from two fulltime staff to eighteen (Law 2008).⁶ Seeking to capitalize on this business potential, the program moved to aggressively target broader market share. CarboNZero attended the 2010 Product Carbon Footprinting Forum in Berlin where it highlighted its ability to ride the sustainability wave and "position itself as a global product operating to international best practice with credibility and integrity" (Manufacturing NZ 2010).

In service of this expansionary strategy, carboNZero sought formal accreditation from the Joint Accreditation System of Australia and New Zealand (JAS-ANZ). CarboNZero also attained ISO 14065 certification, the newly developed international standard for GHG validation and verification bodies. The decision to reform the program in line with ISO 14065 was a deliberate strategy to win the business of larger firms in the face of competing schemes that offered cheaper certification options. As a 2009 press release notes, accreditation was deliberately intended to "place a line in the sand between us and the pretenders" (CarboNZero 2009).

Accreditation precipitated increased adherence to best practices in a number of areas, particularly those related to impartiality. As a requirement for accreditation, carboNZero had to draft a detailed commitment to impartiality, develop an independent technical committee, and institute a robust complaints and appeals procedure. These commitments to best practice, in turn, helped it win further business from large retailers. In 2008, it landed a contract for a major value chain management firm in the UK. The firm "had engaged Oxford University to see which organizations had reputable, robust carbon footprint measurement systems that could stand up to scrutiny" and selected the carboNZero program (Gorman 2008). In explaining why this commitment to procedural rigor and credibility is important, retailers and value chain consultants commented to

carboNZero staff that they were simply practicing sound risk management and protecting their brands by choosing the most credible option for managing carbon emissions (Landcare Research 2008).

The indirect scrutiny directed at the label through its major retail clients reinforced Enviro-Mark and carbonNZero's commitment to best practice adherence. As the program expanded into the UK, it targeted major retailers like Marks & Spencer, Sainsbury's, and Tesco. While expressing enthusiasm for the carboNZero label, these retailers also expressed concern about where carboNZero was sourcing its carbon offset credits. They saw a potential reputational risk if any of the credits were found not to be permanent or additional.⁷ Consequently, in response to indirect scrutiny applied by its prospective retail clients, carboNZero staff strengthened procedures for verifying and validating carbon offsetting projects, deciding to no longer accept carbon credits certified to third-party offset standards at face value. The ELO moved away from using offset credits generated by major hydro-electric projects or the destruction of chlorofluorocarbons (CFCs), even if these projects were certified under the UNFCCC-supported Clean Development Mechanism (CDM) or Verified Carbon Standard (VCS). When asked directly about what motivated the push to add this extra layer of assurance to carbon offset sourcing, an Enviro-Mark employee responds: "It came from the retailers. They were concerned about where the carbon credits came from and whether they were additional, permanent and whether there was any risk associated with making that claim."⁸

The indirect scrutiny of large retail clients was also vital to increasing best practices around efficiency. Following its expansion into the UK, Enviro-Mark targeted a major public utility for CEMARS certification. The utility giant indicated that it would look at certification only if the ELO could harmonize its reporting requirements with those of the Carbon Disclosure Project (CDP) and negotiate some kind of recognition under CDP. Following this conversation, Enviro-Mark began to work closely with both CDP and the newly announced Carbon Reduction Commitment (CRC) Energy Efficiency Scheme in the UK to ensure that measurement and reporting requirements for its CEMARS standards were harmonized (Achilles 2015; Newton 2010). The decision to work collaboratively with other standards to reduce duplication (a best practice in efficiency) was therefore explicitly motivated by the desire to target large utility firms who wanted to reduce their reporting requirements.

Over time, the aiming big strategy led to increased revenues and improved organizational capacity, which further reinforced Enviro-Mark's commitment to procedural rigor. Expanding revenues from logo licensing and certification activities have allowed Enviro-Mark to hire more staff and maintain a high commitment to transparency and program improvement.

Between 2008 and 2009, the carboNZero program increased revenues by 75% and the number of domestic and international clients by 25% (Landcare Research 2009, 5). There was further scaling in 2010 with the program expanding into Chile, winning recognition from the UK Environment Agency, and securing a new licensing agreement to gain access to the Australian market (Landcare Research 2010, 5). Once again revenues grew by 20% and total certifications increased by 51% over the previous year (Landcare Research 2010, 30). Revenues increased again by 29% in 2010/2011 and the organization increased its carbon management portfolio to 44 million tons (Landcare Research 2011, 6). In 2013, global carbon emissions under management reached 130 million tons and the number of certifications once again increased by 29% (Landcare Research 2013, 5). This expansion is predicated on a deliberate growth strategy. Because of this strategy, Enviro-Mark now possesses the resources to invest more heavily in best practice adherence. For example, it publicly discloses a full audit report for each of the firms it certifies and maintains a robust commitment to improving its standards in accordance with external developments. These commitments take time and resources, but they have been abetted by the organization's consistent growth.

Notwithstanding Enviro-Mark's unique origins as a New Zealand CRI, it appears that its connection to the state has exerted limited influence on its commitment to best practices. Transparency is the lone area of best practice that employees cite as driven by public ownership. According to staff members, being part of a CRI predisposes Enviro-Mark to demonstrating best practices in this area.⁹ Yet, the same employees go on to note that this commitment to transparency is just as much about defending the ELO's credibility against emerging challenges. As Enviro-Mark expands into new markets and wins larger clients, it has witnessed a concurrent increase in the number of challenges to specific carbon neutrality claims. The decision to publicly disclose everything, from its carbon accounting methodology to the name of the auditor used to the serial number of the offset credits purchased, reflects a desire to defend against challenges brought against Enviro-Mark's labels. As an employee notes, "our transparency has paid off, because any time we've had a challenger from the commerce commission, the commission just goes and looks up the disclosure on our website and says 'you can't challenge this because it's all legitimate.'"¹⁰ Here again, critical scrutiny brought on by expanding the targets of governance offers more analytic leverage for explaining best practices than public ownership structure.

In sum, the balance of evidence suggests that Enviro-Mark's exemplary adherence to best practices is a direct result of its decision to target large

firms and new markets for certification. From humble roots servicing a domestic market through an informal program, it has strategically evolved to become an accredited, credible certification provider. This change can be traced back to its broader strategy to capture transnational market share. Engagement with retailers continues to drive attention to procedural rigor and credibility through indirect pressure stemming from a concern over critical scrutiny. As a result of aiming big, Enviro-Mark has expanded its revenue streams and deepened its commitment to best practices through augmented organizational capacity.

TCNC

Much like Enviro-Mark, TCNC can trace increased attention to best practices back to a shift in its target audience. As the organization evolved from primarily targeting individuals and celebrities to servicing corporate clients, it increased its attention to best practices in the areas of rigor, transparency, and impartiality. Procedural rigor was used to defend TCNC against the scrutiny that accompanied its broader public profile and to gain access to large-scale, brand-sensitive corporate clients. A consequentialist concern for direct public scrutiny and criticism from the media and NGOs brought on by expanding certification activity is therefore the primary mechanism through which aiming big affects best practice adherence in this case.

To begin, TCNC is a very different organization today than it was at its inception. Presently, the ELO counts some of the biggest brands in the world as its customers, including Microsoft, Coca-Cola, and UPS. However, this was not always the case. When the ELO was formed under the name Future Forests in 1997, its target market was unclear. Co-founders Dan Morrell and Sue Welland had initially conceived of the organization's *raison d'être* as providing companies with a tangible way to demonstrate their green credentials, but found little success with this business model (Thackray 1999). Consequently, they adjusted their business model to target individuals instead. As Dan Morrell commented in 1999: "we realized we needed to change the focus from the corporates to the people who actually bought their products. This way we might turn company indecision into a yes and build a public following" (Thackray 1999). Future Forests therefore began by targeting individuals who wanted to offset carbon emissions from their weddings, events, or personal lives. While this strategy made sense at the time, it also limited certification activities to a small group of

environmentally conscious citizens. In short, it was a strategy premised on aiming small.

In line with its then-modest ambitions, Future Forests applied little rigor, either procedural or substantive, to its certification and labeling activities. The idea of carbon neutrality was still in its infancy and small groups of individuals subsidizing tree planting schemes attracted little scrutiny from media or NGO groups. This changed when the fledgling ELO began to target celebrities. In an attempt to grow the business, the co-founders reached out to their former networks in the music, fashion, and film industries. Dan Welland comments: “our first challenge was to get anyone to take us seriously. We got a lot of cool opinion-formers on our side, including Damien Hirst and Keith Allen, friends who believed in it” (Thackray 1999). Within a few years, Future Forests had managed to attract a number of high-profile celebrities, including The Clash lead singer Joe Strummer and actor Leonardo DiCaprio. On the strength of these celebrity endorsements, in 2001, they secured capital from a London venture capital firm and a Dutch bank. This modest shift in target audience—from individuals to celebrities with some degree of influence over broader market behavior—and the concurrent changes to its public profile caused TCNC to add elements of rigor to its certification activities, albeit in a limited and non-systematic fashion. It recruited the Edinburgh Centre For Carbon Management to assess its carbon offset projects and agreed to an annual systems audit by KPMG.¹¹

Over time, TCNC’s celebrity clientele began to attract interest from corporate clients. However, it also invited criticism. As one TCNC employee later recalled: “celebrity endorsement was the sharpest double-edged sword for us. It gave us profile and brought clients to us, but at the same time, the profligate lifestyles of celebrities drew attention, drew obvious attention.”¹² TCNC began to face public criticism from both NGOs and media outlets. In 2006, rock band Coldplay sought to offset the GHG emissions associated with production of their second album through a tree planting scheme in southwestern India. Fans of the band were encouraged to contribute to “The Coldplay Forest” at a cost of 17.50 GBP per person. However, both TCNC and Coldplay came under fire when a UK newspaper, the *Sunday Telegraph*, revealed that the majority of promised trees had died. Moreover, the Indian laborers charged with planting the trees “had not been given funding for labor, insecticide or spraying equipment to nurture them.”¹³

The following year, a Scottish newspaper, the *Sunday Herald*, ran a similar exposé. This time, the suggestion was that one of TCNC’s main afforestation projects in the Orbost forest lacked additionality—that TCNC was investing money into trees that would have been planted anyway because

the project was already funded by government grants.¹⁴ UK media ran with the idea of carbon offsets as a metaphor for Catholic indulgences or medieval pardons. Celebrities were criticized for attempting to pay their way out of purgatory.¹⁵ The spate of media criticism provoked an immediate reaction among TCNC's early corporate clients. Following the Orbost forest debacle, a spokesperson for Volvo warned: "to ensure that Volvo has not been misled over its investments, we will discuss this matter further with TCNC."¹⁶

The heightened scrutiny that accompanied the decision to certify celebrities (who were themselves a means for TCNC to reach a broader audience) led to two changes. First, the organization re-branded from Future Forests to TCNC. Ostensibly this re-naming occurred because it was shifting its offset portfolio away from tree planting schemes toward other types of carbon credits, but the change also likely had something to do with Future Forests' tarnished reputation. Second, TCNC once again shifted its target market away from individuals and back to large corporate clients. As an employee notes: "when we re-branded as TCNC, we stopped doing individual sales to the public and celebrities and started shifting our attention toward the corporates."¹⁷ This change in target audience was part of a deliberate strategy to shift away from risky, high-profile celebrity certifications and toward profitable, high volume, and comparatively less-risky corporate certifications. Put differently, TCNC adopted an aiming big strategy. This decision precipitated further changes to the ELO, most significantly, leading it to direct greater attention to procedural rigor. TCNC reasoned that while individuals and celebrities could overlook the inconsistency in its carbon neutral claims, corporate clients were likely to be less forgiving. Adherence to best practices was therefore a prerequisite for gaining the business of brand-sensitive companies.

As a result of the decision to target corporate clients, two changes occurred at TCNC. First, it moved to strengthen The CarbonNeutral Protocol (the standard that underpins TCNC's carbon neutral label). As corporate clientele increased, it became increasingly vital that claims of carbon neutrality be guided by a clear and transparent set of rules. Much of the rationale for increasing transparency around The CarbonNeutral Protocol was defensive. Early on, TCNC faced a number of complaints through the Advertising Standards Authority. It was able to pre-empt or respond to these complaints by having a transparent protocol that demonstrated that all carbon neutral claims were made in accordance with it.¹⁸ The other rationale for strengthening the protocol was to enable further growth. TCNC knew that big businesses were sensitive to criticism around carbon claims and needed insulation against their critics. As one employee states: "we

grew our client base during that period because enough clients believed that the protocol offered enough ‘protection’ as it were . . . The fact that Microsoft or M&S [Marks & Spencer] work with us, is because we have the protocol.”¹⁹ TCNC’s investment into rigorous and credible procedures was therefore primarily driven by a need to build trust with, and extend credibility to, large retailers.

The brand sensitivity of downstream retailers was particularly influential in pushing TCNC toward best practice adherence. One employee notes:

Generally, the more branded an organization is, the more its brand defines its market impact, the more critical they were in their due diligence. Those that are upstream, tucked away in the value chain, or those that were small, independent outlets, would be less concerned. Not unsurprisingly, we were working with proactive brands like the Body Shop, Ben & Jerry’s, etc. And of course they paid quite a lot of attention to whether we were credible suppliers.²⁰

At roughly the same time that it strengthened its protocol, TCNC also developed an independent technical advisory group (now called the Advisory Forum). The group, comprising scientists, economists, civil society leaders, and TCNC clients, was intended to add impartiality and authenticity to The CarbonNeutral Protocol. While the Advisory Forum was technically created in 2005, its powers subsequently grew significantly as its members were allowed to conduct site visits at offset projects and make their reports to the executive publicly accessible.²¹ Here again, the rationale behind adding this layer of impartiality was to attract corporate clients and increase the market share of its carbon neutral labels. As one employee notes:

We used [the Advisory Forum] so that when a client asked us “who says this is any good?” we had an answer to that. We’ve got a protocol, we check our adherence to the protocol, and we have an advisory group who tells us that we’re following best practice. So that closed the quality circle for us.²²

The Advisory Forum helped in other ways as well, mostly by ensuring the sincerity of TCNC’s efforts to reduce carbon emissions. Recently, in response to criticism from the Advisory Forum, TCNC has stopped buying carbon credits from projects that destroy HFC-23 and N₂O and from large hydro projects with generating capacity equal or greater than 15MW (Crouch 2013). These changes respond to concerns voiced by the Advisory Forum about the additionality, potential for leakage, and adverse social and environmental impacts of offset projects. In this way, the Advisory Forum continues to strengthen TCNC’s standards. As an employee states: “having

granted a third party the independence and right to be publicly critical of what we were doing provided us with the positive tension to do the right thing.”²³

TCNC follows a similar trajectory to other credible ELOs examined in this book. From a small-scale ELO primarily targeting individuals, it evolved into a large-scale transnational enterprise certifying major corporate clients. The change in the ELO’s target audience—from individuals, to celebrities, and later firms with large market shares—precipitated a change in its adherence to best practices. Improvements in the areas of rigor, transparency, impartiality, and truthfulness resulted from direct media and NGO scrutiny on TCNC itself and indirect scrutiny through its large corporate clients.²⁴ Hence the primary causal sequence at work here is a consequentialist concern for best practice adherence driven solely by critical scrutiny. Notwithstanding TCNC’s strategic motives for adhering to best practices, there remain good reasons to believe that improvements to procedural rigor are durable. As one employee notes, nowadays “people take that for granted and expect it from us. If we stopped doing it, it would be like taking the safety belts out of a Volvo.”²⁵

Significantly, the effects of aiming big explain TCNC’s behavior more completely than its status as a for-profit ELO. As with the BAP case in the previous chapter, the scrutiny of large retail clients appears to exert upward pressure on best practice adherence in opposition to any downward pressure that may result from TCNC’s profit-seeking motives. It is for this reason that TCNC does not conform to the expectations set out for profit-seeking ELOs in the earlier statistical analysis, namely, that it should be less adherent to best practices. Thus, a key take-away is that for-profit ELOs are every bit as capable of procedural rigor, but careful attention should be paid to who they target for certification before making any credibility judgment.

The Carbon Trust

The Carbon Trust falls below the average IBP score for the broader population of ELOs analyzed in chapter 2 and ranks third among the four transnational carbon labeling ELOs. This is surprising given that it is both publicly-funded and a not-for-profit, two conditions that are largely associated with best practice adherence in the earlier statistical analysis. Nonetheless, three factors related to who The Carbon Trust targets for governance have restricted its conformance with best practices. All pertain to the ELO’s unique origins and the ways that certain structural conditions

affect its ambition to target foreign markets or larger corporate clients. First, because The Carbon Trust was initially created by the UK government to help meet a domestic emissions-reduction target, its certification activities have remained largely confined to the UK, and until recently, it has demonstrated little ambition to target firms outside that jurisdiction. Second, even within its home country, The Carbon Trust has not aggressively pushed to engage larger businesses. Indeed, it actually adopted the reverse strategy by targeting smaller enterprises. This has reduced its exposure to critical scrutiny and diminished the need for democratic legitimacy. Third, when The Carbon Trust has succeeded in working with larger businesses, it has mostly been for reasons of legal compliance with UK carbon reporting regulations. Few large companies pursue its certification as a branding strategy, consequently The Carbon Trust has managed to avoid the indirect scrutiny that normally accompanies working with large, brand-sensitive corporations. All of these factors have diminished the public scrutiny faced by The Carbon Trust's standards, constrained opportunities for stakeholder democracy, and reduced revenue flows that could be used to increase organizational capacity. Taken together, these factors have adversely affected The Carbon Trust's conformance with best practices.

Understanding why The Carbon Trust adopted an aiming small strategy requires an understanding of the organization's origins. The initial idea for The Carbon Trust came from a report written by Lord Colin Marshall, a former member of the UK House of Lords and then President of the Confederation of British Industry. Lord Marshall was tasked with finding a way to meet the UK's ambitious carbon emissions reduction target without jeopardizing the competitive position of British industry. His report to parliament suggested that any revenues from a commercial energy tax be "recycled in full to business, with at least some of the revenues channeled into schemes aimed directly at promoting energy efficiency and reducing greenhouse gas emissions" (Lord Marshall 1998, 34). When the Blair government introduced the Climate Change Levy (CCL) to parliament in March 1999, it was with the understanding that many of the revenues from this downstream energy tax would be recycled into support for business decarbonization initiatives offered through a new arms-length organization, The Carbon Trust.

Thus The Carbon Trust was initially created for the purpose of reinvesting tax revenues into UK businesses, or, in Defra's (2005) words: "to help the implementation of energy efficiency in the business and public sectors as well as encourage the development of a low carbon sector in the UK." The unique origins of The Carbon Trust help explain why it did not initially

target firms outside the UK. Quite simply, expanding outside the UK was not part of its original remit. For this reason, The Carbon Trust has had little incentive (until recently) to expand into North America or the rest of Europe. As a longtime expert in this sector commented when asked to describe the main players in carbon labeling: “There’s The Carbon Trust. I’m not as familiar with them. They seem to be dominant in the UK market . . . They’re not mentioned in the US or on the continent.”²⁶

Even within the UK, there is little evidence that The Carbon Trust pursued an aiming big strategy by targeting larger companies. This is understandable given that it did not have a strong economic imperative to do so. The majority of The Carbon Trust’s funding from inception until relatively recently has come from government grants. In 2008, when The Carbon Trust Standard for Carbon first launched, 93.6 million GBP of its 97.6 million total income for the year came from grant income, the vast majority of which was supplied by various government departments (The Carbon Trust 2008b). Revenues from certification and labeling were, and have remained, a nominal fraction of its total operating budget. Given that its operating budget is completely decoupled from its certification activities, The Carbon Trust has had little incentive to improve certification and logo licensing revenues by targeting bigger companies.

In fact, government funding may have led The Carbon Trust to aim smaller instead of bigger. In 2010, The Carbon Trust launched a new online service designed to target small and medium enterprises (SMEs), which represent 45% of business energy usage in the UK (Bateman 2010). The program charged a flat rate of 450 GBP for an expedited online certification service. While this move is certainly consistent with the UK government’s broader goal of decarbonizing the economy, it is not consistent with an organization targeting broader market presence. Here again, The Carbon Trust’s unique origins as a publicly funded organization with a domestic decarbonization objective conditioned who it targeted for governance.

When large businesses did adopt The Carbon Trust Standard, they were often less inclined to scrutinize its content or the organization behind it. This, in turn, reduced the indirect pressure on The Carbon Trust to follow best practices. The reason for this can be traced back to The Carbon Trust’s relationship to the UK government’s CRC, announced in 2007. Its goal was to implement a mandatory carbon emissions reporting and pricing scheme for large public and private sector organizations in the UK—those using more than 6,000MWh of electricity per year. One way that organizations could meet the reporting requirements for the scheme was through undergoing certification to The Carbon Trust Standard. In doing so, many large corporations were simply trying to fulfill their legal requirements

and not, as with other certifications, to use eco-labeling as a marketing tool or a highly visible piece of corporate social responsibility. As one interviewee observed: “in the UK, companies don’t tend to sing and dance about their certification.”²⁷ Since certification supported mandatory reporting and occurred largely outside the scrutiny of NGOs and media groups, large corporations were less inclined to push The Carbon Trust toward best practice adherence out of concern for critical scrutiny. Hence, the fact that The Carbon Trust targeted and secured contracts with several large corporations did not have the same impact on best practice adherence that it did in other sectors.

Taken together, these three limitations on target audience help explain The Carbon Trust’s inattention to best practices across a number of areas. Whereas other ELOs were compelled to engage with new groups of stakeholders as they expanded into new markets, The Carbon Trust largely avoided these processes by remaining rooted in the UK. It had no incentive to aggressively pursue new clients in foreign markets because it had a stable source of revenue from government grants. This lack of outward expansion, in turn, diminished the need to engage in practices of stakeholder democracy since the targets of governance remained domestic. Consequently, The Carbon Trust ranks the lowest of the carbon labeling ELOs on best practices related to engagement and impartiality.

The Carbon Trust was largely able to avoid critical scrutiny by working with domestic firms and SMEs, both of which make relatively low-value targets for media and NGO scrutiny, thereby limiting The Carbon Trust’s exposure to indirect scrutiny. When The Carbon Trust did successfully recruit large corporate clients, it was insulated from the pressure of their scrutiny because, at least in some cases, these clients were simply fulfilling their legal requirements. It stands to reason that businesses that have no intention of publicizing their certification also lack an incentive to ensure that the certification owner meets the highest possible levels of best practice adherence. This lack of indirect pressure explains why The Carbon Trust scores below the other carbon labeling ELOs on best practices related to transparency. Quite simply, the scrutiny directed at other carbon labeling ELOs was not present in this case.

The Carbon Trust, as an ELO with clear roots in the UK government, further suggests that ownership is not always the best predictor of procedural credibility in eco-labeling. While the statistical analysis in chapter 2 indicated a correlation between publicly owned ELOs and high IBP scores, The Carbon Trust case suggests that this relationship is largely context dependent. In this case, public funding and government directives about which firms to target for certification actually insulated The Carbon Trust

from critical scrutiny and external pressure for democratic legitimacy that could have positively influenced best practice adherence. Thus, while this case suggests that a simple public-private dichotomy offers little leverage for explaining best practices in eco-labeling, it does reiterate the importance of structural conditions for determining who an ELO targets. The Carbon Trust's decision to target SMEs and domestic markets is less a purposive choice and more a legacy of its unique mandate to reduce UK carbon emissions.

It is worth noting that conformance with best practices may increase at The Carbon Trust in the near future as the organization is increasingly compelled to target firms in foreign markets. In 2011, the UK government cut The Carbon Trust's funding by 40% and announced that it would have to bid for future government work (Moulds 2012). The Carbon Trust has responded to these cuts by becoming more entrepreneurial and seeking, for the first time, to increase its transnational market share. In its latest annual report, it outlines a new strategy to become self-sustaining and to expand its services internationally (The Carbon Trust 2014, 20). As Tom Delay, the Trust's chief executive comments in the report: "we remain committed to our ground breaking work in the UK but also prioritize strategic growth, increasing our impact and diversifying our customer and partner base through our presence in the key geographies of Asia, Latin America and Africa" (The Carbon Trust 2014, 3). In light of this shift in its targets of governance, The Carbon Trust may have reason to revisit best practices around engagement, impartiality, and transparency in the near future.

Carbonfund.org

The final case, Carbonfund.org, is the least conformant with best practices of the four carbon labeling ELOs surveyed in this chapter. Not coincidentally, it is also the least ambitious in terms of targeted market share. While Carbonfund.org underwent tremendous growth between 2005 and 2008, its rate of expansion quickly stagnated, partly because of deliberate choices to keep the price of certification low and to register as a 501(c)(3) charity. These two early choices have restricted Carbonfund.org's targeted customer base primarily to SMEs headquartered in the United States. In servicing this market, Carbonfund.org has largely avoided the critical scrutiny that accompanies certifying bigger corporations. Its primarily domestic focus provides limited incentives to practice stakeholder democracy by opening its standard-setting procedures or governance bodies to a broader community of stakeholders. Moreover, Carbonfund.org's modest ambitions affect

its organizational capacity by diminishing certification and logo licensing revenues. This makes it difficult to follow some of the more expensive aspects of best practice, like impact M&E. In short, Carbonfund.org's decision to aim small negatively affects its ability to adhere to best practices.

Carbonfund.org is a grassroots organization in the truest sense of the phrase. President Eric M. Carlson started it with little money and no employees in 2003. Between 2003 and 2005, the ELO accrued total revenues amounting to just over 42,000 USD (Carbonfund.org 2003, 2004, 2005). Then, in 2006, total revenues grew suddenly to 749,000 USD (Carbonfund.org 2006). In a 2007 newspaper interview, Carlson attributed the rapid growth to heightened public concern over climate change. This concern was fueled in the United States by the severe hurricane season of 2005 and the release of Al Gore's *An Inconvenient Truth* in 2006 (Rosen 2007). Subsequently, 2007 and 2008 were windfall years, with total revenues reaching 4.9 million USD in 2007 before falling slightly to 4.1 million USD in 2008 (Carbonfund.org 2007, 2008). However after 2009, revenues stagnated and have hovered between 1.9 and 2.7 million USD ever since (Carbonfund.org 2009, 2010, 2011a, 2012, 2013a). Thus while Carbonfund.org at one point had an opportunity to target larger firms or foreign markets, it has since lost considerable momentum. It is currently a marginal player in the transnational market for carbon neutral certifications.

There are a number of reasons why Carbonfund.org adopted an aiming small strategy. The first concerns the way the organization is legally structured. Carbonfund.org is a 501(c)(3) charitable organization. Organizations or products seeking to obtain a Carbonfree certification make a donation to the Carbonfund.org Foundation. This, in turn, is used to finance carbon offsetting projects in renewable energy, energy efficiency, or reforestation. Individuals or corporations that donate to Carbonfund.org are entitled to a tax deduction, but crucially, only if they pay taxes in the United States. Thus, there is a strong incentive for US organizations to seek Carbonfree certification, but there is no corresponding benefit for international clients. The decision to structure itself as a charitable organization has resulted in the vast majority of Carbonfund.org's clients being US organizations.²⁸

While it has managed to secure a handful of clients internationally, Carbonfund.org is constrained in its ability to target firms outside the United States because the amount of money that 501(c)(3) organizations can spend on paid advertising before incurring taxes is restricted by law. Consequently, there has been little effort to market Carbonfund.org outside the United States and there is little awareness of Carbonfree certification in Europe, Asia, or Oceania. As Eric Carlson noted in a 2007

newspaper interview, the company has not done much advertising and has grown largely “by word of mouth” (Rosen 2007). This inability to target non-US firms has important consequences for best practice adherence.

While Carbonfund.org is constrained by structural conditions in its ability to target foreign markets, it also purposively chooses to target SMEs and individuals. This, in turn, has important consequences for its exposure to indirect scrutiny. In 2006, over ten thousand customers found Carbonfund.org on the internet (Pelton 2007). Yet most of these clients were individuals, not corporations. At the time, Carbonfund.org offered individuals the opportunity to proclaim themselves “zero carbon” by paying 99 USD (Pelton 2007). The cost was based on a calculation that the average American produces roughly twenty-three tons of carbon dioxide a year. In exchange for their donation, clients were offered a bumper sticker proclaiming their carbon neutrality. Carbonfund.org also offered to certify entire families as carbon neutral for 396 USD and compact cars for 19.91 USD (Weir 2006). While it no longer offers any kind of formal certification for individuals, Carbonfund.org does continue to offer them a chance to neutralize emissions informally through contributions to offset projects.

Here then is an important distinction between Carbonfund.org and its competitors. Whereas Enviro-Mark and TCNC capitalized on the surge of interest in climate change around 2006 and moved quickly to target large corporations, Carbonfund.org never did. It maintained a business strategy that involved selling lots of modestly priced carbon credits to as many individuals as possible. In doing so, it failed to secure lasting relationships with large clients that would endure beyond the afterglow of *An Inconvenient Truth*. The ramifications of this decision is that Carbonfund.org is now a marginal player in carbon neutral certification. Whereas some demand for carbon neutrality still exists in the corporate sector, demand from individuals has fallen precipitously.

Carbonfund.org employees note that there is no specific type of business they target and that they are willing to work with everyone from single proprietorship businesses to major multinational corporations,²⁹ though its marketing materials suggest a deliberate effort to target SMEs. Carbonfund.org differentiates itself from other carbon neutral certifications on the basis of affordability. Its website states:

Some for-profits charge more than twice as much as Carbonfund.org, including for offsets that come from the same projects with the same certifications. So why do they charge so much more? Beats us. At Carbonfund.org, we support the highest quality carbon offsets at an affordable price. (Carbonfund.org 2011b)

It offers simplified certification procedures for small businesses by charging a flat fee based on their number of employees. This strategy has proven quite successful in certifying small businesses, which comprise the majority of Carbonfund.org's two thousand or so CarbonFree business partners. However, it has been less successful in recruiting larger corporations. In the handful of cases where Carbonfund.org has partnered with larger businesses, its engagement has often been limited to a single product line or time-bound event. For example, Carbonfund.org partnered with Hyundai on a project to offset the emissions associated with a single model of car for a single year. It has partnered with Motorola to certify a particular model of cellular phone Carbonfree. Due to the limited nature of its corporate partnerships, Carbonfund.org has certified a fraction of the GHG emissions covered by the other carbon labeling ELOs.

The decision to target SMEs primarily in the US market and to limit the depth of corporate partnerships influences best practice adherence through a number of mechanisms. First, it has allowed Carbonfund.org to largely avoid scrutiny by NGOs and media outlets. While certifications for major multinational retailers tend to engender critical examination, a carbon neutral certification for a boutique consulting firm—the type of organization that Carbonfund.org tends to certify—is unlikely to result in further scrutiny. On the few instances where Carbonfund.org has come under media scrutiny,³⁰ the focus has been on the practice of offsetting more generally and not on the practices of the organization in particular. To date, NGOs have been unwilling to expend any energy investigating a marginal player in the broader carbon neutral certification landscape. Moreover, because individuals and small businesses tend to be less risk averse than large, brand-sensitive retailers in choosing a certification, there has been an absence of indirect pressure on Carbonfund.org to ensure that it meets best practice standards.

Restricting the breadth of Carbonfund.org's target market has also reduced the permeability of its governance to external stakeholders, thereby reducing the opportunities for intra-organizational socialization that could strengthen best practice adherence. At both TCNC and Enviro-Mark Solutions, external advisory committees representing a range of interests are encouraged to feed into standard development and revision. This is not the case at Carbonfund.org. As of 2015, only its Carbonfree Product certification is supported by a free-standing standard, whereas the requirements for Carbonfree Partner certification are not made explicit. Unlike standard-setting procedures at TCNC and Enviro-Mark, updates and revisions to the Carbonfree Product Protocol take place in-house.

While Carbonfund.org claims to use a third party consultant to validate any changes to the standard, it does not provide any information on the identity of this third party.³¹ This level of insularity would be untenable if Carbonfund.org had ambitions to target firms outside the United States or to certify larger, brand-sensitive corporations. In such a scenario, stakeholder democracy would be a requisite for achieving social license to operate in new markets. However, because Carbonfund.org certifies mostly smaller companies in a domestic market, it has been allowed to conduct key governance functions largely behind closed doors.

Lastly, the lack of revenues from more ambitious certification activities adversely affects organizational capacity. By its own admission, Carbonfund.org operates with a skeleton staff. While this helps to keep costs low for customers, it also puts many of the costlier elements of best practice adherence out of reach. For example, Carbonfund.org does not have an impact monitoring and evaluation program, nor does it have the resources to map its stakeholders and engage them in standard development and monitoring. In this way, limiting the targets of governance also restricts Carbonfund.org's material ability to be in full conformance with best practices.

Recently, Carbonfund.org's lack of procedural rigor has resulted in genuine challenges to the credibility of its eco-labels. Many of these challenges center around whether the organization's quality assurance protocol for carbon credits is rigorous enough. In the past, Carbonfund.org has come under fire for buying renewable energy certificates from clean energy projects that are already up and running.³² Critics question the additionality of such actions and whether the money invested into carbon credits is actually generating any new emissions reductions. Eric Carlson acknowledges that Carbonfund.org contributes to renewable energy projects after they are built, but counters that his subsidies help make renewables more profitable and competitive with coal-fired power plants (Pelton 2007). However, this is far from an accepted practice in the field and indeed, is one that might very well be challenged if Carbonfund.org allowed external stakeholders any influence in determining the rules underlying how its certification is awarded. As one interviewee disparagingly commented: "there are still people like Carbonfund.org who will sell you a renewable energy credit or an offset and tell you they are the same."³³

Thus, at its root, Carbonfund.org's below-average adherence to best practices can be traced back to its decision to aim small by targeting small, domestic firms for certification. The organization's charitable structure and low-overhead business model have kept its certification and labeling activities localized, for the most part, in SMEs in the United States. As

a result, it has largely managed to avoid both direct and indirect critical scrutiny. Moreover, without outward ambition to target firms in foreign markets, Carbonfund.org remains closed off to appeals for increased stakeholder democracy that may enable greater attention to best practice adherence. Its strategy of aiming small also restricts certification and logo licensing revenues that would allow it to invest more heavily into best practice adherence.

The Carbonfund.org case illustrates how both agency and structure help determine who an ELO targets for certification and suggests the importance of path dependency in conditioning future behavior (Auld 2014). In particular, Carbonfund.org's decision to register as a 501(c)(3) charity had long-lasting effects that conditioned which types of firms it was able to target. In this case, a purposive decision (becoming a charity) led to future structural constraints (inability to spend resources on advertising and diminished incentives for foreign firms to pursue certification). Similarly, the deliberate decision to maintain a strategic focus on certifying individuals following the surge of interest in carbon neutrality that accompanied *An Inconvenient Truth* ultimately led to structural constraints on who Carbonfund.org could target for certification. By the time the surge of interest in carbon labeling faded, its competitors had seized a dominant share of the corporate market. In sum, Carbonfund.org's early decisions had long-lasting effects that ultimately impacted the degree to which it adhered to best practices.

CONCLUSION

The analysis just presented provides further support for the aiming big hypothesis developed in chapter 3. Much the same as sustainable aquaculture, a decision to target large firms and foreign markets appears to be both temporally prior and causally linked to conformance with best practices in carbon labeling. When carbon labeling ELOs aimed big, they were also inclined to pay close attention to best practices in order to assuage nervous retail clients and protect their labels from increased public scrutiny. This consequential concern for winning new market share and protecting reputation was the driving force behind improvements to labeling activities by Enviro-Mark Solutions and TCNC. When historical or structural factors diminished imperatives to target large firms or foreign markets, ELOs avoided public scrutiny and calls for stakeholder democracy that may have strengthened conformance with best practices, as was the case for The Carbon Trust and Carbonfund.org. In both negative cases, a combination

of deliberate choices and structural constraints affected the ability of each ELO to expand outside of domestic markets and into larger businesses.

The cases in this chapter also provide further evidence that a focus on the targets of governance offers a stronger explanation of procedural credibility in eco-labeling than a focus on ownership. In Enviro-Mark Solutions and The Carbon Trust, we find two very similar organizations with origins in the public sector. Both were initially founded and funded by government with the aim of furthering national climate change and biodiversity priorities. Both subsequently evolved to attain a nominal degree of independence. Yet, the two organizations differ markedly on levels of conformance with best practices. The principal distinction between them is that Enviro-Mark moved quickly and aggressively to expand out of New Zealand while The Carbon Trust only recently attempted to grow outside of the UK. Hence, we observe variation in the targets of governance and concomitant variation in best practice adherence even when holding public-ownership constant.

This chapter presents a similar, albeit less-robust, challenge to the hypothesis that for-profit governance schemes are inherently non-credible. In TCNC, one finds an example of a for-profit eco-labeling scheme that has evolved to become one of the more credible schemes in its sector. This is not to say that its for-profit status has any direct bearing on TCNC's propensity to adhere to best practices, but it does imply that the structural imperatives to cut corners in service of profit can be sufficiently moderated by the positive forces associated with targeting large firms and foreign markets. In this case, the initial desire to earn money by selling dubious carbon credits was swiftly curbed by critical scrutiny as TCNC shifted from targeting individuals to celebrities and later corporations. As one expert in the field who observed the growth of TCNC comments:

People wanted to do good and they picked a really interesting territory where they thought they could make a wee bit of money, and low and behold, they found themselves in the firing line of being labeled the biggest scam going in the carbon space. So I think that was the impetus for them to say, OK let's cut this criticism off at the pass and make sure that we address all of these issues.³⁴

In terms of its empirical relevance, this chapter raises an interesting paradox for the future practice of carbon labeling. If, as now appears likely, corporate carbon accounting and mitigation efforts will soon become required by law in many countries, then it is possible that standards for carbon accounting and offsetting may actually be lowered. In several of the cases described here, retailers exerted considerable upward pressure

on standard systems because they were concerned about the potential for material and reputational damages that accompany making a fraudulent or incomplete claim in a public forum. Recall the pressure retailers put on Enviro-Mark to add an extra layer of scrutiny to existing carbon offset standards. If, however, carbon footprints and offset purchases were to become legally required, the publicity surrounding these actions would be reduced since all businesses would be doing them by necessity. This, in turn, may diminish the impetus to ensure that the standards are rigorous, credible, and capable of withstanding critical scrutiny. In other words, if retailers no longer have to “sing and dance” about their carbon credentials, there is a possibility that they will pay less attention to the rigor and defensibility of their carbon accounting and offsetting standards. This seems to be the observed pattern in The Carbon Trust case where scrutiny of The Carbon Trust Standard was absent because it formed part of a mandatory reporting scheme. Of course, the nature of this effect depends on the content of carbon accounting and mitigation laws. It is also possible that stern government oversight will reduce the need for critical scrutiny.