Chapter 9. Transparency

Transparency is very much related to freedom, the quality of our relationships, the quality of our lives, and sustainability.
—Hal Lazarus and Tom McManus (2006)

The U.S. economy will work well only if costs are true costs and if they are visible. This requires transparency in reporting sustainability and providing more complete information about the value of goods and services, investments, assets, and natural and social capital as well as the potential impacts of new policies and program implementation. The need for transparency applies not only to consumer products and corporations, but also to nonprofit and nongovernmental organizations (NGOs) and government programs. Consumers, investors, advocates, and policy makers cannot make good decisions without transparency and a clear understanding of value. Employees and contractors can also benefit from increased transparency. Having a better and more complete understanding of their place in the value proposition can improve productivity, performance, and satisfaction. The goal of transparency should be to make costs, benefits, values, and risks as clear as possible. This will require revisions and improvements in existing regulations and reporting requirements.

At best the information will be imperfect, simply because ecological, social, and financial systems and their interactions are not understood very well. Transparency starts with a base in careful research and reporting, but completeness does not ensure transparency. Information must also be presented in a manner that enables consumers to understand it. Offering label detail in English on products that will be purchased by consumers who may speak and read only Spanish will do little good. Detailed product information may be provided on the Internet, linked to a label code, or by a radio frequency chip attached to the product that can be read by a wand provided by the store.

Additional funding and a commitment to more comprehensive sustainability research are essential in developing better cost, benefit, value, and risk information. This information will never be complete and perfect, but it must be much better than it is today for the market to work and for better products and policies to be developed, monitored, and enhanced. Improved information is needed at all levels, from consumers to producers, marketers, distributors, retailers, and policy makers.

Transparency can be constrained by legitimate desires to maintain fiduciary duty, security, intellectual property, contracts, privacy, and competitive advantage. The information released and discussed must be as complete and open as possible as well as carefully vetted to protect important or private details, strategies, and processes. But the previous refrain of “trade secrets” will no longer be sufficient when labeling product ingredients that are likely to impact health and safety issues.

The management of transparency should be very carefully worked out with stakeholder input. What do stakeholders want to know? How can this best be done? A review should be as straightforward as possible, and it may be necessary to spend some time and effort to make sure that critical facts are released while at the same time protecting proprietary information and private details.

If critical facts that should be disclosed are obscured, deliberately or inadvertently, then the market can fail and the impacts can be widespread. The 2008 collapse in the U.S. subprime loan market is a perfect example. Mortgage brokers, sellers and lenders focused on the profits from fees, unsophisticated consumers were misled, and even reasonably sophisticated international buyers of subprime loan packages were unaware of the risks. It was a perfect storm where a set of perverse incentives encouraged everyone to behave badly and to avoid responsibility. Consumers were encouraged to lie about their income. Assessors were encouraged to inflate values. Brokers focused on fees, not the financial integrity of the deal. And banks collected their fees and passed the risk and responsibility to others without hesitation. The root of the financial and personal disaster that is continuing to unfold was a lack of transparency.

The ongoing derivatives market failure is likely to be even worse. These complex financial instruments are as opaque as possible; in many cases even the salesmen cannot explain them. The total amount in play is uncertain, but it may exceed $1 trillion dollars worldwide. A potential investor cannot look up the details or understand the implications of complex interactions, because there are no reports or documents that explain these factors. It is often a case of the blind following the blind, and in some cases the blind following the mendacious. Just as the subprime meltdown occurred in part because consumers could not understand the risks they were taking, the derivatives debacle will leave everyone shaking their heads.

And still in the wings is the likely failure of many hedge funds, whose managers revealed little detail to anyone and who gambled on both subprime loans and complex derivatives.

The steps needed for better transparency include:

- More complete sustainability research and reporting (discussed in chapter 6, 7, and 8)
- More complete and accurate information and direct attribution of external costs to specific products, services, and facilities
Disclosure of better information at point of sale through labeling, certification, and links to detailed information.

Much better information about long-term investment potential, risks, and unknowns.

More complete disclosure and reporting of stakeholder involvement and consideration of triple bottom-line effects in policy development, decisions, and implementation.

More careful vetting of information through auditing and certification.

Improving transparency and honesty in government statistical reporting is also important. Statistics increasingly are being modified to suit the political process instead of shedding light on the actual situation. An example of this is the U.S. Federal Reserve’s decision to cease publication of M3 monetary statistics beginning in March 2006. Prior to the cessation, the reporting of the M3 statistics highlighted the problems of the U.S. trade imbalance and the increasing vulnerability of the United States to outside debt holders.

Revisions to methods for calculating unemployment statistics are equally troubling. If a person has been out of work for 6 months, he or she is no longer deemed unemployed. If a person is not actively looking for work, is working fewer hours than he or she would like (“involuntary part-time”), or is in prison, he or she is not unemployed. These determinations allow the U.S. government to report a rate of unemployment of “only 6 percent,” when more realistically by some estimates it may be closer to 12 percent. This under-reporting of unemployment strongly influences public perception and reduces the pressure for changing policies and priorities. If an honest unemployment rate were calculated and published, there would be outrage, if not disbelief.

The same types of problems are found at the state and local level. Many statistics are no longer developed or maintained as government agency budgets are cut. Funding for research and recordkeeping have also dropped, and I have increasingly little trust in a wide range of state and federal reports. If standards cannot be met, definitions can be changed when reporting is not transparent. In San Diego, the mandate for waste diversion was not going to be met, so waste was redefined and, voila, the standard was met. One of the important challenges for the next few years will be to establish a renewed emphasis on the quality of data recording, with notations on reliability and potential errors, and on more honest analyses and reporting.

Although lack of transparency is a serious problem in the United States, it is much worse in developing countries, where the legal framework for business may be shaky at best and where information on environmental and social problems may be nonexistent or suppressed. This may be further compounded by a tradition of bribery, disinformation, and nondisclosure. Many examples exist of statistical reports that were essentially created out of thin air, repeated year after year, or borrowed from neighboring countries.

With stakeholder support, efforts to enhance transparency and reporting can lead to significant and rapid improvements. In some cases, multinational companies can use the leverage of the home country or international reporting standards to improve information quality and transparency abroad. This must be done with care to protect local employees, community leaders, and NGOs from retribution.

**Sustainability Reporting**

As biologist J. Emil Morhardt succinctly put it: “Transparency should be your goal” in sustainability reporting. Transparency requires careful consideration of what information is needed, how it can best be obtained, verified, and audited (if required by regulators); and how best it should be presented in both company and product reports and labels. This detailed information is essential for effective and ecoefficient operations that are community-friendly. It is also important for potential customers, suppliers, and regulators. An effective environmental management system (ISO14000 developed by the International Organization for Standardization) or EMAS (ecomanagement and audit scheme) can help an organization develop and respond to new information.

The first sustainability reports a company or organization prepares may be fairly crude, but the identification of data gaps and missing information will lead to improvements in the breadth and depth of reporting. The elimination of existing internal subsidies, such as sustainable products that support environmentally costly products, will lead to improved products and services. These will be easier to report completely, making reports better and more accurate and improving transparency. Sustainability reporting becomes a positive feedback loop.

The Global Reporting Initiative (GRI) is a common sustainability-reporting framework. While it is far from perfect, I think every company should consider preparing a GRI report. Larger organizations can refer to full-scale GRI-reporting criteria and sector guidelines, while smaller companies can refer to Appendix B and the GRI High 5 Handbook, which was launched in November 2004. This handbook offers step-by-step guidance and practical how-to advice for smaller organizations and companies. The GRI documents and guidelines have all been developed with considerable stakeholder input; however, they need improvement, particularly for more complex and long-term social and ecological impacts. Transparency is highlighted in the GRI process (Figure 9.1). A GRI report includes the organizational profile, activities, products, strategies, and approaches to
management. The critical element is an organization’s performance regarding important environmental, social, and economic issues, including trends and a look forward. Transparency of reporting is highlighted to ensure that key information is included and displayed in ways that are easy to understand and that encourage comparability with other organizations. Disclosures should be complete and referenced where possible, and estimates should be indicated. Data gaps should be identified, and processes and programs to improve information quality in future years should be developed and described.

The criteria used to set boundaries should be discussed, including what is and is not covered in the reporting. A more inclusive than exclusive approach is recommended. The sources and quality of the information should be discussed. Which information has been verified, audited, or certified? It can help to review reports from a range of companies in your sector, if they are available. Johnson & Johnson’s sustainability reports are not too long, yet are relatively complete and easy to understand. Or use the GRI database or the Pacific Sustainability Index to find a well prepared report for a company or organization similar to yours.

**Figure 9.1. GRI Transparency**

Cost and Benefit Information at the Activity, Enterprise, and Product Level

Better information is essential for informed sustainability reporting. Improving transparency clarifies the need for better information. One of the historic problems of accounting and sustainability has been the disconnect between products and services and costs. When environmental health and safety (EH&S) is an overhead account (as it has traditionally been), then bad products are subsidized by good products. Profits may be reduced or losses may be incurred when environmentally costly products demand detailed recordkeeping, added regulatory interaction, and more costly waste disposal.

General EH&S overhead may also be very different between a low-volume, short-production run and a high-volume, long-production run. If overhead is simply charged at a flat rate, the profitable high-volume item may end up subsidizing a costly low-volume item. The difference can be striking: as much as 200 percent less for the high-volume item and 1000 percent more for a low-volume item. This difference can determine whether these production runs are seen as profit or loss centers.

Activity-, enterprise-, and product-based accounting (AEPB) has been making inroads in industry since the 1980s and is often included in management accounting textbooks today. It is, however, frequently neglected.

Among companies that were using AEPB in 1994, reasons for use were:

- Cost reduction and management: 78%
- Activity performance measurement and improvement: 57%
- Cost modeling: 57%
- Product or service output decisions: 50%
- Product or service costing: 50%
- Budgeting: 43%
- Customer profitability analysis: 28%

Health and safety issues, pollution, wastes, and risk are often concentrated within just a few products or services. Many of these problems can be identified and addressed through AEPB accounting, which relates costs and profits to specific products, activities, or enterprises.

The steps needed to develop an AEPB system typically include:

1. Developing a process map (activities, enterprises, products, and services)
2. Identifying operating costs, finance and capital charges, and other costs related to key activities or enterprises
3. Calculating external social and environmental costs related to key activities or enterprises
4. Estimating potential costs and risks (liability, regulatory burden, insurance)
5. Linking activities to processes and identifying cost drivers
6. Summarizing the costs for each process, activity, enterprise, product, and service
7. Providing incentives to improve the value proposition

A value chain analysis (VCA) of a company, enterprise, product, or service explores some of these same steps. Key activities are identified first, and then costs and income are allocated to the activities. A VCA
can be done by examining sample products or services and by doing a more detailed analysis of all costs, income, and profit. A more ambitious approach is to try to identify total costs in the value chain and then trace them down to a product or service. The final step is to identify cost drivers and linkages, thereby identifying points where changes can be made. When VCA was applied to grocery chains in Europe, a savings of 5 percent was realized, a dramatic improvement for a very competitive low-margin industry.

Two other examples suggest the potential for VCA. Kunert, a textile firm, reduced pollution by 20 percent after calculating and considering its costs more carefully, increasing profits by 1 to 2 percent. Amoco Oil found that at one facility the environmental costs were 22 percent of nonfeedstock costs. Waste treatment and disposal costs were dwarfed by administration, fines, fees, sulfur recovery, and maintenance and depreciation of pollution-control equipment. This new understanding led to changes that reduced these costs dramatically and provided a quick payback. When true costs are better understood, the value chain can be more clearly understood.

Computerized accounting systems have made using AEPB easier, and vendors offer many AEPB accounting products. These will often require customization to fit specific companies and to factor in external costs. A company or organization’s information technology (IT) division should be a major player in AEPB accounting system development. Check for Acorn Systems, SAP, Oracle, ALG, Terradata, and other enterprise performance management software suppliers.

AEBP can be applied to any organization, from a multinational consumer product company to a family restaurant or farm. An example may help show how it can help.

AEPB for a Farm

AEPB can be applied to explore which parts of a farm operation are profitable. The summary of costs and returns in Table 9.1 for Hartland Farm is based on a range of studies from the Midwest, and assumes a $5 bushel price for conventional corn. For most of 1998–2008 the bushel price fell closer to $2 and losses were much higher. Adding external costs more clearly illustrates the long-term value proposition of the farm operation.

### Table 9.1. The Value of AEPB for Heartland Farm

<table>
<thead>
<tr>
<th>Acres</th>
<th>Current Operation</th>
<th>Including External costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 conventional corn</td>
<td>$80,000</td>
<td>-$57,200</td>
</tr>
<tr>
<td>100 organic corn</td>
<td>$50,000</td>
<td>$5,100</td>
</tr>
<tr>
<td>300 grain fed beef</td>
<td>$26,100</td>
<td>-$41,100</td>
</tr>
<tr>
<td>Net</td>
<td>$156,000</td>
<td>-$93,200</td>
</tr>
</tbody>
</table>

Heartland Farm as it is currently operated would appear profitable to most owners, many of whom look at profit in relation to operating costs, excluding full overhead costs and asset value changes over time. The cost of the land and overhead must be considered for the true picture to emerge. This more complete accounting would also make it clear why subsidies have been offered by the federal government. If asset value decline were added, losses would increase (see Chapter 8). A more careful analysis that considers true (external) costs would probably cause the owner of Hartland Farm to give up current methods of producing corn-fed beef and high-input corn. A switch might also be made to producing grass-fed buffalo, which producers say requires half as much work for twice the profit. The high-input operation of the farm demands many purchased supplies (energy-intensive fertilizer, feed, chemicals, antibiotics), and conventional products are priced lower than organic products. The price of some fertilizers has tripled in recent years as energy prices have increased.

AEPB accounting takes time and effort, but it is a powerful tool for better incorporating costs in the decision-making process. The cost of finding the desired information depends on the distance of linkage from a company or organization, the quality of existing accounting systems, and the availability of external cost data or estimates. It can be costly to do AEPB accounting well from scratch, but even relatively rough estimates can be revealing.

The cost of AEPB accounting can be reduced by developing industry, region, and process databases, which provide reasonably good data for product, material, and external costs. These averages are less than ideal, but are helpful. As more detailed analysis are done, it will become clear that impacts are more often rarely average, depending on the complex interactions between the past history and development of a facility, the concerns and engagement of managers, and local environmental and regulatory requirements. If water supply has been costly, water efficiency will often be good. If energy was subsidized and cheap when a facility was first built, the energy-efficiency of the facility may be very low. As information improves, the quality of the data will improve and costs will drop. Ideally, specific data will be available to offer consumers the most complete and transparent information possible.

Modest investments in improved environmental accounting often lead to significant gains in the triple bottom line: profitability, corporate image, and reduced liability. Data-mining (DM) software, an evolving focus within the IT discipline, may be very helpful in achieving
these gains. The considerable amount of data involved in a detailed sustainability analysis can make it difficult to effectively identify, select, cleanse, and analyze the needed information without these computer tools. Data mining can be used to explore, collect, and analyze large volumes of data, to detect hidden patterns, and to convert raw data into useful information. But using DM software can require new skills, training, and more integrated accounting across department and division lines.

Improving the triple bottom line may also be achieved through greater stakeholder involvement, as a wide range of stakeholders, inside and outside of an organization, may be involved in gathering or tracking required information. Stakeholders may also benefit from having improved access to the information they are gathering or tracking. Stakeholder identification may be improved using software such as Stakeware.

To exercise sound managerial control, an organization needs access to high-quality, pertinent, and complete real-time data that accurately portray costs, benefits, and asset values. In a large firm, massive amounts of data are collected from a multitude of business-oriented transactions that are routinely tracked in a typical day. If environmental and social information are added, data management becomes a challenge. Decision makers can sometimes feel overwhelmed by the avalanche of data. Information systems technology (IST) can be an enabling force to effectively manage large amounts of data and can have a direct impact on improving profits and sustainability. IST can also drive innovation. IST capability can make it possible for an organization to capture the data required to monitor the many metrics needed to assure the creation of quality products and services, while minimizing environmental and social costs and optimizing environmental and social benefits.

Increasing technological capabilities such as global-positioning systems, remote Internet access via satellite, Bluetooth and other wireless technologies and networks, and increasingly sophisticated software can provide detailed information at relatively low cost that can be fed into company reporting and budgeting systems. Some new vehicle tracking systems, for example, provide continuous monitoring of engine performance, fuel use, and vehicle emissions to ensure maintenance and repairs are done in a timely manner. Information and data taken from such tracking systems would be ideal for detailed and actionable sustainability reports.

Much remains to be done to define and develop the best IT application tools, systems, and software to identify, capture, cleanse, process, and disseminate integrated sustainability data. Developing and refining tools will require the cooperation of a range of stakeholders and vendors. Tools that make reporting sustainability data efficient and easy for even small firms are urgently needed. For large firms, software or middleware might need to interact with Microsoft, Oracle, SAP, Autodesk, Abacus, and other office accounting and management packages. For small firms, software should be free or low cost, perhaps from Google or other Internet players or from NGOs. The software will ideally be easily integrated with programs such as Quicken or QuickBooks, which are often used by small enterprises. Software upgrades should ideally be available for download on-line, to capture rapidly developing improvements in the processing and quality of information. NGOs will continue to play a key role in developing data management tools, such as the paper impact calculator created by the Environmental Defense Fund. Utilities and government departments should provide comparable calculators for global warming gases, water use and disposal, stormwater runoff, nitrogen pollution, and other impacts from energy production and distribution.

Management professionals, scientists, health specialists, and regulators from a wide range of disciplines will need to work together to successfully blend search, acquisition, and management strategies, methodologies, and tools for potential application in this increasingly complex accounting and management environment. DM systems can effectively sift through enterprise- or industry-wide database repositories and provide automated, structured trend analyses may be of critical importance in speeding the transition to true cost accounting, long-term profitability, and a sustainable future.

Database developers, information source managers, and accountants must be educated on the importance of sustainability reporting, the type of information required, and the need for readily-accessible and timely information. Data management development efforts can improve transparency by making sustainability reporting faster, cheaper, more effective, and more fun. This engaging and demanding work would benefit from a challenge grant program or X-prize of several million dollars to encourage more rapid development of data management tools, systems, and software.

**Improved Consumer Information**

A better understanding of sustainability issues from reporting and monitoring will make it possible to develop better product labels and specifications. This in turn will make it possible to improve marketing efforts by providing customers with more complete and easy to understand information about potential benefits and negative impacts. The nature of these disclosures will depend on the product, the market, and consumer demand. While in some cases regional, local, association, or national standards may be desirable, an internationally recognized standard would help more in this increasingly globalized economy. International labeling would also help level the playing field in trade, returning developed countries to a more competitive position in manufacturing.
In general, the best eco-labels are seals or logos that indicate that an independent organization has verified that a product meets a set of meaningful and consistent standards for environmental protection and/or social justice. Eco-labeling entered mainstream environmental policy making in 1977, when the German government established the Blue Angel program. Many more eco-labels have been developed, and consumers must consider who developed them and how they are administered.

The Consumers Union suggests using the following criteria to evaluate eco-labels:

- Eco-labels should have a set of environmentally meaningful standards that can be verified by the certifier or another independent-inspection organization.
- An eco-label used on one product should have the same meaning if used on other products. Standards should be written in a way that can be verified in a consistent manner so that the label is consistent in meaning among different products.
- The organization behind an eco-label should make information about organizational structure, funding, board of directors, and certification standards available to the public.
- Organizations establishing standards and deciding who can use a logo should not have any ties to and should not receive any funding from the sale of certified products, nor should they receive contributions from logo users beyond fees for certification.
- Employees of companies whose products are certified or who are applying for certification should not be on the board of directors of the certifier (and no one affiliated with the certifier should be on the board of directors of the organization seeking certification). Certifying organizations should consider developing explicit conflict-of-interest policies that prohibit this kind of link or affiliation.
- Certification standards should be developed with input from multiple stakeholders, including consumers as well as industry, environmental, and social representatives in a manner that does not compromise certifier independence. For example, industry representatives can play an important advisory role without having direct financial, decision-making, or management ties to the certifier.

Label information can be improved for low-cost packaged products, beginning with simple details such as "global warming gas emissions, grams per packet." An improved information summary can give consumers a much better idea about the history and true cost of a product. For example, for a shirt the sewn-in tag might include a score for social and environmental costs and benefits. This might be done on a scale of 1–10, with 8 for industry-leading best practices, 10 for ideal practices, and 1 for very poor practices. A detailed Web site might also be established so that consumers can get more complete information, including in which factory the product was produced as well as company information on wage and benefit structure, employee retention, water use, waste creation, pollution discharge rates, rankings versus competitors, and other triple-bottom-line considerations.

For simple products, limited information may be provided on the package or product. Perhaps just a carbon emissions amount would be included. The carbon amount shown in the label in Figure 9.2 was calculated by Walkers working with the Carbon Trust. Walkers’ Web site provides additional information, including the emissions produced at each step of a product’s pathway (e.g., 44% farming, 30% processing, 15% packaging, 9% delivery, and 2% disposal). If the packet has to be picked up by a groundskeeper, the cost goes up.

![Figure 9.2 Carbon impact labeling](image)

For more expensive products, an intelligent chip (radio frequency identification or RFID) may be the best solution. When scanned the chip could provide fairly detailed information, including a full range of performance characteristics, environmental and social impacts, and even rankings and ratings from consumer organizations and government agencies.

For service providers, information should be included with billing. For example, utility companies should be required to report to consumers not only a list of electricity generation sources, but also an impact calculation for the utility bill that would include global warming gases, nitrogen pollution, mercury emissions, sulfur dioxide, and so forth as well as potential health costs, bird kills, and other ecosystems impacts (Table 9.2).

This more detailed information fits well with an ongoing shift toward a stakeholder approach to marketing. In 2004, the American Marketing Association changed the definition of marketing from “creating
Table 9.2 San Diego Gas & Electric Power Mix

<table>
<thead>
<tr>
<th></th>
<th>SDGE 2008</th>
<th>CALIF. 2007</th>
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<tbody>
<tr>
<td>Coal</td>
<td>10%</td>
<td>32%</td>
</tr>
<tr>
<td>Large Hydroelectric</td>
<td>5%</td>
<td>24%</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>58%</td>
<td>31%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>19%</td>
<td>3%</td>
</tr>
<tr>
<td>Eligible Renewable</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>biomass</td>
<td>3%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>geothermal</td>
<td>&lt;1%</td>
<td>2%</td>
</tr>
<tr>
<td>small hydroelectric</td>
<td>1%</td>
<td>6%</td>
</tr>
<tr>
<td>solar</td>
<td>&lt;1%</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>wind</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Your emissions and energy footprint this month:
CO\textsubscript{2}, NO\textsubscript{x}, SO\textsubscript{x}, and Mercury ____.
 Thousand gallons cooling water ____.
 Bird kills ____.
 Base rate 14¢ kwh.
 estimated external cost 9¢ per kwh.

Exchanges that satisfy individual and organizational needs to “a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders.” This approach to marketing is a shift toward establishing long-term relationships with loyal customers as opposed to one-time purchasers. It also considers other product or service beneficiaries and possible impacts and concerns beyond the conventional customer base.

Product certification makes a difference. Consumers can learn more about the quality and value of a particular certification by going to the Web site of the certification organization. Which NGOs back the label and which criticize it? Consider the opinions of groups, such as Environmental Defense Fund, Natural Resources Defense Council, and Consumers Union.

As economist and eco-certification expert Michael Conroy commented in a March 2008 interview: “One of the amazing things about being here at Oxford and around London is that public awareness of . . . certification systems is so high that all of the major grocery chains are competing in their advertisements, in the Sunday flyers, to talk about what new Fair Trade or FSC-certified (wood) or MSC-certified (seafood) products they have.” Companies are looking at the quality of the certifiers as a method of improving consumer response to their brand and label.

Eco-labeling and certification have also improved business management in developing countries as companies realize the potential added value of eco-labels in competing in the global marketplace and in avoiding downward price pressure on products and services that are not certified. For example, textile producers in Egypt selected the German Eco-Tex label, and certification was done by an Austrian Institute. This led to additional orders, and the textile companies were pleased with their investment.

Certification is also expected to lead to changes in the problematic electronic products industry. Although the Basel Convention bans the shipment of used electronics to developing nations for recycling because they contain so many toxic materials, the practice is still commonplace. E-waste is a critical problem in Asia and Africa. Several groups, including the Silicon Valley Toxics Coalition, are working with major electronic manufacturers in the United States to develop a new set of standards for recycling e-waste.

While internationally recognized eco-labels are desirable, international trade regulations from the World Trade Organization (WTO) in their Agreement on Technical Barriers to Trade (TBT) can complicate eco-labeling and offer recalcitrant industries or countries an opportunity to delay or disrupt labeling. The TBT includes several specific provisions that call for all countries to ensure transparency in the development and application of standards and regulations, in particular through the open dissemination of information about standards and regulations. The text of the General Agreement on Tariffs and Trade (GATT), which was formed in 1947 to provide an international forum that encourages free trade between member states by regulating and reducing tariffs on trade, clearly states that some trade restrictions in the interest of conservation and animal and plant health are permissible, even though they violate the general principles of the GATT. GATT lasted until 1994, when it was replaced by the WTO. The key article of the GATT/WTO agreement with respect to environmental issues is Article XX (General Exceptions).

Many international organizations are now involved in eco-labeling, including the Organization for Economic Co-operation and Development (OECD), the International Organization for Standardization (ISO), the International Trade Center (ITC), the United Nations Conference on Trade and Development (UNCTAD), and the Food and Agriculture Organization of the United Nations (FAO). The Bridgespan Group found that international standard-setters for eco-certification rose from 6 in 1992 to 27 by 2003. Having 50 or 100 or more eco-labels will confuse and frustrate consumers, industry, business, and regulators. The development of rigorous international standards is likely to be slow, complicated, and disruptive, but is critical.

The goal should be to have a limited number of Type I eco-labels, which are defined by ISO 14024 as based on full life-cycle impacts, audited by an independent third-party, and awarded using multiple-public criteria. Until these international standards are developed, the use of regional labels should be encouraged.

The European Union (EU) Flower eco-label, for example, is widely recognized and has been in use since 1992. The sustainable consumption and production standards have been revised and improved over the years and now include services as well as products. The EU
eco-label is awarded only to products with the lowest environmental impact. The process is transparent and the environmental-sustainability criteria that products must meet are developed with the input of relevant stakeholders, including industry, commerce, environmental, and consumer organizations and trade unions. The EU Flower uses a multi-criteria approach, including all potential environmental impacts throughout the life cycle of a product or service. Applicants to the EU Flower eco-label scheme who have already received certification under the Eco-Management and Audit Scheme (EMAS) or ISO Environmental Management Systems (ISO14001) can receive fee reductions of up to 25 percent. The EU label may be moved out of the European Commission to an NGO, much as the Global Reporting Initiative was started by the United Nations, but then spun out into an NGO.

The EU Flower eco-label process ensures that consumers can be reasonably confident that a product or service was awarded the logo by an independent authority with no vested interest in the company that produces the product or service. Eco-labeled products can be marketed across the 15-member nations, as well as Norway, Iceland, and Liechtenstein. Some producers from other countries have already been awarded the EU Flower logo. The process is voluntary and does not create barriers to trade, thus avoiding WTO problems. Current EU eco-label standards stipulate that member states and the European Commission ensure coordination between the EU eco-label scheme and other national schemes, such as Germany’s Blue Angel, particularly in the selection of product groups and the development and revision of the criteria.

The regional Nordic Swan eco-label recognizes the unique environmental profile of each individual product group. The label requirements focus on those activities and processes that have the greatest relevance, potential, and steerability (RPS) in terms of the life cycle of a product. Relevance is assessed on the basis of the environmental problems caused by a product group and the scope of the problems. Potential is evaluated against the background of the opportunity for environmental improvement within the product group in question (e.g., the distinction between current products and technical innovations that are viewed as realistic in the near future within the product group). Steerability is a measure of the degree to which eco-labeling can affect the activity, problem, or requirement in the life cycle of a product.

There is also considerable scope for more eco-labeling to help consumers better understand their ecological footprint and responsibilities. This extends to simple, yet often effective, signs that provide information on ecosystems links (Figure 9.3). Eco-labeling buildings and landscape features can help consumers better understand the options that are available to reduce environmental impacts.

**Figure 9.3. Ecosystem labeling helps inform**

Eco-labeling will become increasingly important in the years ahead, with many opportunities for improved development, implementation, and impact. It is helpful to continue to review the experience of the many eco-label programs now underway around the world. International standards and use will be important to avoid continued export of adverse environmental and social impacts and costs to developing nations and inequities in trade relationships. Even with international standards there will probably be a role for regional, national, and perhaps even local eco-labels. The cost and value proposition, however, must be well understood.

**Investment Opportunities**

By 2003, over a third of the Fortune Global 250 (compiled by *Fortune* magazine) included the financial benefits of sustainability or corporate social responsibility as a main component of their economic reporting in sustainability reports. By 2005, more than three-fourths of the Fortune Global 100 prepared reports on social and environmental performance. Much of the pressure for this enhanced reporting has come from stakeholders rather than shareholders.

More than 10,000 sustainability reports are prepared every year (the majority in Europe). While some of the reports are required by law, more are seen as an opportunity to provide information to potential investors and customers. Sustainability reporting can inform investors about market conditions and opportunities, encourage longer-term thinking, and assuage fears of risk or liability. Product reporting is also improving. Patagonia, a designer of outdoor clothing and gear, offers some refreshingly candid notes on the challenges of improving material choices and the impacts of product life cycles.

Sustainability information is also developed through the Dow Jones Sustainability Indexes (DJSI), FTSE4Good Index Series, and the Pacific Sustainability Index. The DJSI looks at best practices within a sector. FTSE4Good is more comprehensive, and also has negative screens. These screens, and a wide range of others now in use as part of corporate social responsibility initiatives, often are weak in true
sustainability analyses. They more often look at the window dressing (sustainability lip gloss) and not at strategic position and long-term risk. In 2005, for example, Bear Stearns and other banks and financial groups were added to the DJSI. Any consideration of asset value and risk would have precluded this selection. In the same year, banks were being removed from the FTSE4Good index.

More and more investors now expect that a reputable company will provide detailed sustainability information. It makes sense for the company to oblige. If the information is not provided, it raises red flags about the quality and intent of management. If a company will not report and provide sustainability information, what is it trying to hide?

**Stakeholder Involvement**

A stakeholder perspective is essential for more sustainable management, and stakeholders play a critical role in improving transparency. Stakeholders include companies, employees, and communities and those who work for or with them, who care about or dislike them, who make up a market, or who make work possible. A stakeholder view, instead of a shareholder perspective, can help deliver long-term value, improved profitability, and sustainability. A stakeholder perspective can enable a company to: be more competitive and to gain a competitive edge; improve worker satisfaction and productivity; reduce risk; protect reputation and market; discover opportunities for new products and services; improve relationships with regulators; facilitate good relationships with supply chain manufacturers and subcontractors; and reduce marketing costs. Stakeholders have played a critical role in certification programs around the world (Figure 9.4).

![Stakeholder participation](image)

**Figure 9.4. Stakeholder input to certification**

Where the people lead, government will follow—eventually. In most cases stakeholders began working with certification programs long before governments got involved. For organic foods, in 1972 a family-farmer led movement gave rise to the first international certification organization involved with sustainable management: the International Federation of Organic Agricultural Movements. IFOAM is a key group involved in certifying organic food shipped across borders. The U.S. Department of Agriculture did not develop a standard until 2002, 30 years late, and ended up with a relatively weak program. Stakeholders have also helped defend organic certification against agro-industry efforts to weaken it (Figure 9.5).

![Certified Organic](image)

**Figure 9.5. Organic food**

The relative importance of each stakeholder group for a particular company or industry will depend on a variety of historical and organizational factors that led to the creation of a certification. In some cases the drive for certification might be largely from management, but more commonly it comes from outside through pressure from consumer advocates, who function as watchdogs for certification and verification. The growing recognition of the value of sustainable management and inclusion on sustainability indices may increase the importance of the financial community in certification and sustainability reporting.

Stakeholder involvement is also essential for developing improved sustainability reports, labeling and certification systems, and more complete and transparent financial information. Stakeholder engagement can be seen as a problem (new thinking, new systems, potential conflicts), or an opportunity. I would argue instead that it can offer long-term value to the companies that embrace it, the communities where the stakeholders work, and the stability of the planetary ecosystems that support humankind. Transparency implies rationality, truth, trustworthiness, honor, and responsibility. Stakeholders desire what we all want: products and services that are better, faster, cheaper, more sustainable, and more fun!

**Auditing and Certification**

Ensuring the quality of information presented in sustainability reports and labels is still in its infancy in many areas. Sectors with many years of experience, such as organic agriculture and timber harvesting, have developed a better understanding of the structures and
processes needed for certification. For many industries and services the guidelines are still under development.

Auditing and certification are usually done by independent organizations to reduce the chance of data manipulation or outright misinformation and fraud. Both are necessary for many government programs, such as the global warming gas emission reports that are required in California for large polluters. As normal accounting (for money) rules demonstrate year after year, auditing and certification are not enough to prevent malfeasance, but they help. The interest and oversight of NGOs and stakeholders can help keep report quality high.

Certification also makes it possible to make changes by encouraging use of certified products, which can be critical. As Michael Conroy noted: “. . . it [took] two years of campaigning against Victoria’s Secret to get it to implement much more recycled and FSC-certified paper in its catalogs, but what there’s been since then is this whole fallout of many, many other companies following suit. In the case of Victoria’s Secret, they made a small but significant commitment to move forward, and the rest of the catalog industry, which was watching what was happening in the campaign, then did a total turnabout, so that many of the major catalog companies quickly shifted to almost exclusively recycled and FSC-certified papers.”

Certification programs may require outside funding and support. They are most likely to succeed when they help meet, not create, a receptive market. Setting a standard for sustainability in an unreceptive market is tantamount to offering for sale a new invention that nobody understands. It can be like getting a child to eat overcooked Brussels sprouts.

A certification program also needs to be pushing, not just setting, the certification standards. This will usually require continuing engagement with stakeholders and regular revisions and updates. The U.S. Green Building Council has done well at this. However, if certification does not create an attractive value proposition for producers, it is unlikely to survive. Certification has to offer the reward of increased prices, increased sales, or improved marketing opportunities for widespread adoption.

Even when the market is receptive, setting the right certification standard can be a challenge. If the standard is set too high, then pressures may be high to water down the requirements or the verification process, or even to create an alternative certification that is much lower. If the standard is too low, it will have little impact and provide minimal benefits. As Goldilocks might say, it has to be “just right.” The certification process also has to be sufficiently easy to carry out to elicit voluntary compliance, because most certification programs are voluntary and involve independent, nongovernmental bodies that do not have regulatory clout.

For example, the Leadership in Energy and Environmental Design (LEED) certification program created by the Green Building Council (GBC) sets a relatively low standard for entry but offers different levels of certification (certified, silver, gold, and platinum). Almost everyone can get certified, but in order to attain a platinum rating, a considerably stronger effort is required. Individuals who take the LEED training are permitted to use the LEED Accredited Professional (AP) acronym after their name, and all certified projects receive a LEED plaque (Figure 9.6).

The flexibility included in LEED certification has encouraged widespread participation and has helped transform the green building market. GBC has been gradually ratcheting up the standard and developing criteria for more and more building types, from the interiors of leased spaces to residential developments.

Figure 9.6 LEED certification is visible

Certification provides added information and helps market forces create incentives for the broader industry to operate in a more sustainable manner. Industries that feel threatened by a certification process often respond by developing and championing their own “soft certification” process that would allow them to proceed basically doing what they have already been doing. However, even soft certifications may improve reporting and behavior. For example, the Forest Stewardship Council of the United States (FSC-US) was founded in 1993 in accordance with fairly demanding forest management standards. By 2003, FSC had certified only 2.6 percent of U.S. timberland. In 1994, the American Forest & Paper Association launched the Sustainable Forestry Initiative (SFI) as an alternative to the FSC. SFI initially had very low standards and no outside monitoring, but has gradually improved. By 2003, SFI’s membership covered 136 million acres of the most intensely harvested U.S. timberland, or ten times that of the FSC-US. Still, the FSC program has had a tremendous impact, even where it was not the
certification process selected. The growing demand for certified forest products has even led the state of Minnesota to apply for statewide certification, and other states are likely to follow.

Forest management was one of the first areas to have a certification program. There has been a continuing trend toward a proliferation of forest management certificates and labels around the world. Different groups have been talking about establishing convergent standards, but none have emerged. There are a number of reasons for the proliferation, and it creates opportunities as well as problems. On the plus side it provides a range of options that allow consumers, producers, and retailers to choose something they like. Also, any potential monopolistic problems or restraints caused by “the standard” are eliminated. Too many different certificates and labels, however, can confuse rather than help consumers. And if an industry shops for and selects the “minimal” certifier, then consumers may lose faith in the certification process.

Not all countries and producers will have similar access to the skills and consultants needed to support various certifications. Costs for consultants and required research can be prohibitive for small landowners and businesses, even if many producers join together. The European Forest Institute is to be commended for setting up a special Certification Information Service (http://www.efi.fi/cis) specifically to counteract the very poor availability of information in developing countries. NGOs have also helped in organic farming certification efforts in developing countries. Active NGO engagement and support are likely to remain critical in the commitment to maintain strong and effective certification programs.

**Transparency**

Better information leads to better decisions. Improved transparency in reporting, labeling, and investment offerings can lead to more sustainable management and reduced environmental and social costs. Offering more complete disclosure encourages changes in behavior and can help lead companies and organizations to accept responsibility, thereby reducing risk and the potential for future liability. The growing demand for better products and a cleaner and more sustainable world will continue to provide pressure for better information as well as easy-to-understand reports and labels to help consumers, stakeholders, regulators, and managers make better choices. Unlimited money, however, cannot be spent on transparency simply for transparency’s sake; disclosure must add value to the stakeholder community. This requires a careful balancing of cost and value (Figure 9.7). Some types of information are easy to collect, others are more costly. Careful planning and review of the value generated can help make transparency a good investment.

![Figure 9.7. Information quality and cost](image-url)

Consumers may still elect to choose less sustainable products. The “lowest price at any cost” still has some allure. But consumers will no longer be able to say that they “didn’t know.” Investors may accept high risk for potentially higher returns, but will be able to make choices with a better understanding of the high risks as well as potential social and environmental impacts. This is all for the good and works toward the goal that the late W. Edwards Deming advocated: the possibility of working with joy. And working in a manner that makes the Earth a better place to live.