



Eco-labelling

Key points

- **Eco-labels mark energy efficient and environment-friendly products to increase their share in the market.**
- **Awarding criteria and the certification process for eco-labels need to follow specific principles to bring about the desired results.**
- **To make the labelling system effective, governments need to safeguard the credibility and accessibility of eco-labels.**

Eco-labelling explained

Eco-labels are indications on a product, given by an impartial third party, that explicitly convey the non-market value of a good or service in terms of its environmental impact. They are critical for raising environmental awareness, fostering sustainable consumption and assisting consumers (both business and individual) in identifying green products and services and thus promoting their demand and supply.

How it works

Each label defines several specific awarding criteria that indicate the overall environmental sensitivity of a product within a particular product category, based on life-cycle considerations.¹ They are a special subset of the value-based labels² and put value on environmental goods and services that are generally not counted into the monetary production costs and therefore do not appear in the price of the final product. They are intended to convey the hidden value to the consumer or buyer.³ Thus, eco-labels internalize negative environmental externalities into the market price of the product.⁴

The criteria determining the award of an eco-label must be comprehensive, relevant, attainable, measurable and scientifically valid. The certification process should be unbiased, transparent and as simple as possible, incurring minimal administrative costs.

Origin and trends of eco-labelling

Eco-labelling has been applied since the late 1970s to help consumers make more environmentally conscious purchases. Initially, the driving force behind the development of eco-labels and their supportive legislation were green-conscious consumers and multinational corporations in Europe seeking to improve their corporate social responsibility and to green their global supply chains that spanned the whole of Asia. Recently, environment-related labels targeting Asia-Pacific consumers, including those in developing countries, have been steadily growing in numbers (such as Japan's Eco Mark, Republic of Korea's Eco-Labelling Programme, Singapore's Green Label and Thailand's Green Label). In promotion of carbon disclosure through labelling, countries such as Japan, Republic of Korea and Thailand have adopted a carbon footprint programme on a trial, voluntary or mandatory basis.

¹ Global Ecolabelling Network, *Introduction to Ecolabelling* (Ontario, 2004). Available from www.globalecolabelling.net/docs/documents/intro_to_ecolabelling.pdf (accessed 10 February 2012).

² In addition to eco-labels, value-based labels also encompass the certification of fair trade, ethical workplace practices in production (such as no child labour or animal experimentation) or other ethical concerns.

³ Elizabeth Barham, "Towards a theory of values-based labeling", *Agriculture and Human Values* (2002), vol. 19, No. 4, pp. 349-360.

⁴ Paul Upham, Leonie Dendler and Mercedes Bleda, "Carbon labelling of grocery products: public perceptions and potential emissions reductions", *Journal of Cleaner Production* (2010), vol. 19, No. 4, pp. 348-355.

Strengths in eco-labelling

Eco-labels are important tools for achieving green growth, both in industrialized and developing countries. Increased use of eco-labels can reduce the environmental impacts of the manufacturing industries, advance sustainable consumption and production patterns and improve market access of ecologically efficient products, thus increasing their international competitiveness.

Challenges for eco-labelling

The unregulated proliferation of labels that are issued by many entities tends to weaken the effectiveness of eco-labelling. Not all eco-labels have a robust verification scheme, a transparent standard-setting process or scientifically validated standards. As well, the complexity of the information may hinder the customers' clear and well-informed purchase choice. Ensuring reliable, truthful and verifiable information is critical to strengthen the credibility of the eco-labelling scheme and to increase customers' confidence in it.⁵

From the producers' point of view, the costs to conduct environmental impact and life-cycle assessments drive up production costs. The lack of expertise and financial and organizational capacity to conduct the assessments and transform their production and procedures into more environmentally sound ones are common challenges, particularly in developing countries.



Box 1: ENERGY STAR®

ENERGY STAR is an American voluntary labelling programme designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. The US Environmental Protection Agency (EPA) introduced the programme in 1992 for energy-efficient computers. In 1995 the programme expanded to include office equipment products and residential heating and cooling installations.⁶ As of 2010, the ENERGY STAR programme covers more than 60 product categories for home and office products.

Since its introduction, the ENERGY STAR programme has dramatically increased the use of energy-efficient products and promoted widespread efficiency improvements in the United States and beyond. In 2010, Americans reportedly saved US\$20 billion on their utility bills with the help of ENERGY STAR, through more than 240 billion kWh of energy savings. This was equivalent to about 5 per cent of the country's electricity demand at that time and amounted to more than three times the savings through ENERGY STAR in 2000. In addition, 195 million metric tons of greenhouse gas emissions were prevented as an impact of the programme, equivalent to the annual emissions from 38 million vehicles.⁷

The programme's success can be attributed to its ability to reduce the costs and risks associated with purchasing energy-efficient products. The ENERGY STAR rating system provides consumers with an easy-to-understand and unbiased label that reduces the costs (time and risks) for consumers during the search for a reliable energy-efficient product. The robust application of the programme, from the verification process for the rating, regular monitoring and selective product tests to periodic updating of the performance specification, reduces the technology risk associated with the purchase of an energy-efficient product. Strong partnership with industry and equipment manufacturers helped ENERGY STAR to become an effective information and branding campaign, successfully conveying the core messages of energy bill savings and environmental protection. The ENERGY STAR programme has been adopted by Australia, Canada, Japan, New Zealand, Switzerland, Taiwan Province of China and the European Union.⁸

⁵ Mario Teisla, Jonathan Rubin and Caroline Noblet, "Non-dirty dancing? Interactions between eco-labels and consumers", *Journal of Economic Psychology* (2008), vol. 29, No. 2, pp. 140-159.

⁶ United States Environmental Protection Agency, *ENERGY STAR®: the Power to Protect the Environment through Energy Efficiency* (Washington D.C., United States of America, 2003). Available from www.energystar.gov/ia/partners/downloads/energy_star_report_aug_2003.pdf (accessed 16 February 2012).

⁷ United States Environmental Protection Agency, *ENERGY STAR® and Other Climate Protection Partnerships: 2010 Annual Report* (Washington D.C., United States of America, 2011). Available from www.energystar.gov/ia/partners/publications/pubdocs/2010%20CPPD%20Annual%20Report.pdf (accessed 16 February 2012).

⁸ Ibid.



Box 2: WindMade™, the first global consumer label specific to wind energy

WindMade™ is the first global consumer label identifying products and companies that use wind energy. It was initiated by a group of global companies and NGOs, including as founding partners the Global Wind Energy Council, the World Wildlife Fund, Bloomberg, PricewaterhouseCoopers International, the UN Global Compact and the LEGO Group.⁹ The coalition was led by Vestas, a global leader in wind power from Denmark.¹⁰ The initiative was officially launched in New York City in November 2011.

The WindMade label grants qualifying companies the ability to communicate their commitment to wind energy to their consumers, which distinguishes their brands from other manufacturers. To be certified by the WindMade label, companies need to source a minimum of 25 per cent of their electricity consumption from wind power.¹¹ The share of the wind energy can be procured in multiple ways, including procurement through a company-owned wind power generation facility, a long-term power purchase agreement for wind power or the purchase of high-quality renewable energy certificates approved by WindMade. The label indicates the exact percentage of the wind energy share that is consumed during the production process.

For the consumer, the label provides transparent information on the energy use of the companies they purchase their products from, and thus gives them the possibility to make environmentally responsible consumption decisions. In the future, the success of the WindMade label may engender the possible creation of other voluntary-based consumer label systems specific to other renewables, such as geothermal or solar energies.

Box 3: Environmental product declarations

The environmental product declaration (EPD) is an alternative to a certification label. It is based on the idea of simply disclosing information on the environmental impacts of a product (including raw material acquisition, materials and chemical substances used, energy consumption, efficiency, emissions to air, soil and water and waste generation), making it readily available to buyers and consumers.¹² The goal of the EPD is "...through communication of verifiable and accurate information, that is not misleading, on environmental aspects of products and services, to encourage the demand for and supply of those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement."¹³

Unlike prototype eco-labels, declarations do not contain any valuation of the provided information. The EPD multi-standard approach enables customers to make an informed and prudent purchase choice. By using more than one indicator (such as energy efficiency), several types of environmental impacts can be communicated simultaneously. This is useful to reflect the holistic nature of environmental quality and sustainability. Sometimes referred to as "environmental nutrition labels" (similar to nutrition labels on food products), EPDs provide a range of labels that detail greenhouse gas emissions, water use and other environmental impacts separately. This enables a decision based on consumers' or buyers' own weighting of environmental priorities. Thus EPDs are less susceptible to becoming a black-and-white labelling system in which the weighing of different factors may be made rather arbitrary, leaving producers generally little say in the matter. Thus consumers or buyers can decide for themselves whether greenhouse gas emissions are more pressing than, say, water conservation.¹⁴

⁹ Global Wind Energy Council website "WindMade appoints first CEO" (10 June 2006). Available from www.gwec.net/index.php?id=30&no_cache=1&tx_ttnews%5Btt_news%5D=294&tx_ttnews%5BbackPid%5D=4&cHash=b13192d922 (assessed 15 December 2011)

¹⁰ See the Factsheet: CASE STUDY: Wind power takes flight: Denmark's success with renewable energy policies.

¹¹ WindMade, *WindMade Label Program: WindMade Standard for Companies and Organizations*, Version 1.1 (Brussels, 2011) Available from www.windmade.org/media/7232/2011-12-09_-_windmade_standard_-_version_1.1.pdf (assessed 15 December 2011).

¹² EPDs are defined by ISO Standard 14025 as being "quantified environmental data for a product with pre-set categories of parameters based on the ISO 14040 series of standards, but not excluding additional environmental information". For more details, see The Green Standards website "EPDS". Available from www.thegreenstandard.org/EPD_System.html (accessed on 15 February 2012).

¹³ Raffaella Manzini, Giuliano Noci, Massimiliano Ostinelli and Emanuela Pizzurno, "Assessing environmental product declaration opportunities: a reference framework", *Business Strategy and the Environment* (2006), vol. 15, No. 2, pp.118-134.

¹⁴ Aman Singh Das, "Confusion & Doubts Face Wal-Mart as it Ponders Sustainability Index", *Vault blogs*, February 19, 2010. Available from <http://blogs.vault.com/blog/in-good-company-vaults-csr-blog/confusion-doubts-face-wal-mart-as-it-ponders-sustainability-index> (accessed 30 January 2012).

Implementing strategies

Principles and criteria for more effective eco-labelling: Major challenges include improving credibility and increasing user-friendliness of the labels. The abundance of similar labels in the market tends to confuse customers, weakening the trust and credibility of the scheme. Tackling this problem includes limiting the number of labels and regulating and harmonizing the awarding procedures. Governments need to safeguard that the claims made by eco-labels are based on actual environmental benefits and are consistent with recognized and up-to-date scientific findings.

Some governments have already developed state-defined standards and national labelling programmes, as in Japan (beginning from the 1980s). Now the European Union is looking at similar restrictions on an international level.¹⁵ In the United States, where there are more than 300 types of eco-labels in use, the Federal Trade Commission has started to take a closer look at eco-labelling and to crack down on “greenwashing”, which has an extremely negative impact on the perceived credibility of eco-labelling schemes (box 4).¹⁶

Box 4: Greenwashing

Businesses that use a “greenwashing” strategy claim to provide environment-friendly products, production processes or services, without going through a sound and robust verification process. The practice poses a serious problem for eco-labelling because it adds to the confusion of consumers, who are often already overwhelmed by the sheer number of labels all around them, leading to a misinformed purchase choice. Unlike eco-labels, pure advertisement labels that are used in greenwashing are not verified by a third-party and fail to signal a true increase of environmental integrity and protection.

Source: Gwendolyn Bounds, "As Eco-Seals Proliferate, So Do Doubts", *The Wall Street Journal*, 2 April 2009. Available from <http://online.wsj.com/article/SB123862823846680371.html> (accessed 13 March 2012).

Effective eco-labelling practices require the following design and implementation principles:¹⁷

- Accurate, comprehensible and reliable information – the consumer must understand and trust the information conveyed
- Transparent and inclusive processes for setting standards
- Relevant, attainable and measurable criteria that are based on scientifically valid standards and consistent with applications of the product life-cycle approach
- Mandatory review mechanism set within the scheme, which enables flexibility in the awarding scheme and is subject to changes in scientific knowledge, relevant signals from the market or best-practice examples of eco-labels
- A robust verification scheme through a qualified third-party verifier
- Simplicity in the certification process to minimize the administrative burden on producers
- Voluntary participation
- Unbiased, independent nature of the awarding organization
- Open participation, equitable to all kinds of businesses and organizations
- Avoidance of unnecessary obstacles to trade.

Standardizing the product life-cycle analysis, labelling, greenhouse gas management and ecological footprinting methodology across countries and international markets is critical for promoting green products and services as well as for reducing the costs that suppliers incur to meet varying criteria. Options for increasing intra-regional trade would be to agree on a common definition of green products or to harmonize the methodology for calculating a product's ecological footprint and for awarding a green label.

¹⁵ Raffaella Manzini, Giuliano Noci, Massimiliano Ostinelli and Emanuele Pizzurno, “Assessing environmental product declaration opportunities: a reference framework”, *Business Strategy and the Environment* (2006), vol. 15, No. 2, pp.118-134.

¹⁶ Candice Lee Jones, “How green is your label”, *Kiplinger's Personal Finance*, July 2010, p. 49.

¹⁷ Global Ecolabelling Network, *Introduction to Ecolabelling* (Ontario, 2004). Available from www.globalecolabelling.net/docs/documents/intro_to ecolabelling.pdf (accessed 10 February 2012).

Further reading

"Eco-labelling: Enabling Developing Countries to Seize Eco-label Opportunities" (United Nations Environment Programme website). Available from www.unep.fr/scp/ecolabelling/

Introduction to Ecolabelling (Ontario, Global Ecolabelling Network, 2004). Available from www.globalecolabelling.net/docs/documents/intro_to_ecolabelling.pdf

"Psychological determinants of paying attention to eco-labels in purchase decisions: model development and multinational validation", by J. Thøgersen, *Journal of Consumer Policy* (2000), vol. 23, No. 3, pp. 285-313.