GLOBAL ECOLABELLING NETWORK (GEN) INFORMATION PAPER:

INTRODUCTION TO ECOLABELLING

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Introduction to Ecolabelling

This document provides an introduction to *ecolabelling*¹ -- general objectives, guiding principles, key features, and some indicators of success.

What is "Ecolabelling"?

Basically, an **ecolabel** is a label which identifies overall environmental preference of a product (i.e. good or service) within a product category based on life cycle considerations. In contrast to a self-styled environmental symbol or claim statement developed by a manufacturer or service provider, an ecolabel is awarded by an impartial third party to products that meet established environmental leadership criteria.

Ecolabelling is only one type of environmental [performance] labelling, and refers specifically to the provision of information to consumers about the relative environmental quality of a product. There are many different environmental performance labels and declarations being used or contemplated around the world. *Figure 1* (in *Appendix A*) provides a schematic representation of the various types of labels that currently exist.

As has been identified by the International Organization for Standardization (ISO), the overall goal of these labels and declarations 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".

The ISO has undertaken efforts to attempt to standardise the principles, practices and key characteristics relating to three major **voluntary** environmental labelling types -- *Type I - environmental labelling* (i.e. ecolabels), *Type II - self-declaration claims* and *Type III - environmental declarations* (e.g. report cards/information labels). **Box 1** provides general definitions of these different types.

Unlike Type III environmental declarations, ecolabels reflect a determination and recognition of a products' environmental performance leadership characteristics rather than simply a presentation of quantified environmental data. In this respect, the ecolabels "flag" leadership products in the marketplace rather than requiring consumers to undertake their own comparative analyses. **Box 2** highlights some further contrasting aspects of the three types of labels and declarations.

¹ This paper discusses and uses the term -- *ecolabelling* -- as applied by Global Ecolabelling Network (GEN) officials. It is acknowledged that the term has assumed a much broader application and possible understanding in the public domain.

Box 1: Three Types of Environmental Performance Labelling* -- ISO Definitions

Type I*		a voluntary, multiple-criteria based, third party program that awards a license which authorises the use of environmental labels on products indicating overall environmental preferability of a product within a product category based on life cycle considerations				
Type II [#]		informative environmental self-declaration claims				
Type III*		voluntary programs that provide quantified environmental data of a product, under pre-set categories of parameters set by a qualified third party and based on life cycle assessment, and verified by that or another qualified third party				
# As of July 2004, international ISO standards have been developed and implemented for Type I and Type II labelling, while work continues on development of a standard relating to Type III. Consequently, the ISO definition for Type III should be considered a "draft working definition" that could be revised.						

Note there are many more types and variations of environmental performance labels and programs.

Origins of Ecolabelling

The origins of ecolabelling can be found in the growing global concern for environmental protection on the part of governments, businesses and the general public. Initially, and mostly in developed countries, as commercial enterprises recognised that environmental concerns could be translated into a market advantage for certain products, a number of environmental declarations and claims emerged on and in association with certain products. These included labels with such claims as "recyclable", "eco-friendly", "low energy", and "recycled content".

Such labelling of the products attracted consumers who were looking for ways to reduce adverse environmental impacts through their purchasing choices. However, these labels also threatened to confuse consumers. Without guiding standards and investigation by an independent third party, consumers could not be certain that the companies' assertions guaranteed that each labelled product was an environmentally preferable alternative.

This concern with credibility and impartiality led to the formation of private and public organisations providing third-party labelling. In many instances, such labelling took, and continues to take the form of **ecolabels** awarded by programs² operated at national and regional (i.e. multinational) levels.

² Around the world, some organisations refer to their ecolabelling initiatives as "programs" while others use the term "schemes". In this paper, the term -- "program" -- is predominantly used.

Criter	ria Areas / Metri	cs:	Life Cycle Consideration:		
	Туре I	multiple	T	Гуре I	yes
	Туре II	single	T	Гуре II	no
	Туре III	multiple	T	Гуре III	yes
Selectivity:			Third Party Verification/Certification:		
	Туре I	yes	T	Гуре I	yes
	Туре II	no	T	Гуре II	preferred
	Туре III	no	T	Гуре III	yes

Box 2: Comparison of the Three Types of Labels and Declarations

Around the world, there are many other third-party labelling systems in place, or being developed, which are "hybrids" of ecolabelling because they have narrower focuses than a normal ecolabelling program. These alternative programs focus on a single sector (e.g. the forestry industry, the chemical industry, etc.), and/or address only one environmental issue (e.g. air quality, energy conservation, etc.), and/or consider only a single life cycle phase in their applications (e.g. product use, product disposal/recycling, etc.). Of further note, some other "Type I" programs have been designed and implemented to address and recognise more than simply environmental performance aspects.

In a typical ecolabelling program, product categories and ecolabelling criteria are determined by an independent organisation with assistance from a complementary technical advisory group. Generally, once a category is chosen, some form of life cycle review is conducted. This review may include raw material extraction, manufacture, distribution, use and disposal. The differentiating parameters (e.g. energy use, toxicity, etc.) are then used as the basis for criteria development.

Companies which want to participate in an ecolabelling program make application and submit their products for third party compliance testing and/or verification. If approved, the companies pay licensing fees for permission to use the program's distinctive ecolabel symbol for a specified period. Use of the ecolabel is restricted to the approved product(s), and is usually monitored by the managing agency.

Ecolabelling Objectives

Ecolabelling has become a useful tool for governments in encouraging sound environmental practices, and for businesses in identifying and establishing markets (i.e. domestic and sometimes international) for their environmentally preferable products. Many countries now have some form of ecolabelling in place, while others are considering program development. Commitment to clear objectives has been critical to the success of ecolabelling programs around the world. While program officials may express them differently, three core objectives³ are generally established and pursued:

1. *Protecting the environment*

Environmental conservation and protection is generally a primary objective. Through ecolabelling programs, governments and/or non-governmental program authorities seek to influence consumer decisions and encourage the production and consumption of environmentally preferable goods and the provision and use of environmentally preferable services. In this regard, ecolabelling serves as a market-based instrument intended to bring about environmental improvement. Specific environmental objectives may include:

- encouraging the efficient management of renewable resources to ensure their availability to future generations;
- promoting the efficient use of non-renewable resources, including fossil fuels;
- facilitating the reduction, reuse and recycling of industrial, commercial and consumer waste;
- encouraging the protection of ecosystems and species diversity; and
- encouraging the proper management of chemicals in products.

2. Encouraging environmentally sound innovation and leadership

Ecolabelling programs, through the awarding and promotion of an ecolabel, offer a market incentive to environmentally innovative and progressive businesses. By offering products that reduce stress on the environment, the businesses can establish or reinforce a market niche and positive corporate image among consumers, thereby realising an advantage (and possibly compelling other businesses to follow suit). Generally, ecolabelling criteria are set to reward only the top environmental performers in a product category. Most programs gradually and incrementally raise standards to encourage producers and service providers to keep pace with new and emerging performance improvement opportunities and market shifts.

3. Building consumer awareness of environmental issues

Ecolabelling programs can also serve to heighten consumer awareness of environmental issues and of the implications of their choices. In countries where there is a high degree of consumer awareness, a trusted ecolabel that provides reliable information on the environmental impacts of products in the marketplace may be all that is required to promote the selection of ecolabelled products. In countries where consumers are not as highly motivated by environmental concerns, ecolabelling can be used to promote environmentally beneficial actions.

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³ While not exactly an "objective", some program planners and authorities have identified and are exploring the merits of using ecolabelling as a "trade-positive" tool (i.e. for promoting export products in foreign markets where consumer awareness and concern for environmental impacts is established and significant).

Guiding Principles for Ecolabelling

Based on the experiences of successful ecolabelling programs and pertinent ISO work, a series of principles can be identified as being critical to an effective and credible program:

1. Voluntary participation

The decisions of manufacturers, importers, service providers and other businesses to participate in an ecolabelling program must be voluntary. Programs should also be designed and operated so that potential industry participants (and other interested parties) can request that ecolabelling categories and criteria be developed for their products.

2. Compliance to environmental and other relevant legislation

A key contributor to the credibility of an ecolabelling program is the nature and extent of program participation requirements, both product-specific and more general conditions. While the main focus of the ecolabelling criteria relates to the environmental aspects and performance of a product being offered, it is important to also address the regulatory compliance of a producer's/provider's facility from which the product is being offered. It is generally accepted that a basic component of industry [environmental] leadership is full compliance with relevant environmental and other legislative requirements. (This compliance requirement may be a licensing condition for program participation rather than a product compliance criterion.) The approach usually taken is to require compliance to legislation applicable on a local/regional scale. This approach acknowledges, and avoids challenging, the varying regulatory requirements that may exist in different jurisdictions. It also avoids imposing on foreign program applicants what could be perceived as "unnecessary obstacles to trade".

3. Consideration of "fitness for purpose" and level of overall performance

Besides legislative compliance, it is also important to address the quality and performance of a product that is to be considered for ecolabelling. The credibility of both the ecolabel and the ecolabelling program could suffer if products bearing the ecolabel don't demonstrate comparable quality and reasonable performance in relation to alternatives. Market and consumer surveys and research have shown that environmental attributes is only one factor considered by consumers in their purchasing decisions, and is usually only factored in once comparable quality and performance has been established.

4. Based on sound scientific and engineering principles

Maintenance of stringent technical requirements based on good ecological science assures consumers that they can trust the ecolabel and licensing applicants that they will be treated fairly. Further, there is a strongly prevailing view that product environmental criteria should be based on indicators arising from life cycle considerations. The rationale is that there is a generally perceived [growing] need to assure consumers, as well as producers and service providers, that all aspects of a product's development, provision, use and end-of-life options have been taken into account.

5. Criteria must distinguish leadership

Criteria should be developed and adopted which clearly distinguish a leadership segment of a product category from the rest of the category. While it can be quite challenging to determine the appropriate "cut-off point", it is essential in order to avoid and/or effectively address potential challenges of arbitrariness and/or irrelevant leadership criteria.

6. Criteria must be credible, relevant, attainable, and measurable/verifiable

Maintenance of stringent technical requirements based on good ecological science assures consumers that they can trust the ecolabel and licensing applicants that they will be treated fairly. A movement towards full life cycle review in most programs, for example, is in part a result of the need to assure consumers and producers that all aspects of a product's life cycle have been taken into account. However, criteria must also be practical in terms of being attainable (for a leadership market segment initially) and expressed in measurable units that can be verified. In other words, criteria must be acceptable, reasonable and useful to potential program licensees, entities tasked with verifying compliance to the criteria, consumers/procurers, and other interested parties.

7. Independence

A credible ecolabelling program should be operated by an organisation independent of vested commercial or other interests. Program independence also extends to how product categories and environmental award criteria are determined. Typically, this is done through formal and direct representation of different stakeholders and interested groups on independent boards, panels or advisory groups. The boards/panels/groups generally include members from industry, environment, consumer, academic and scientific, and government sectors. The challenge is to strive for some degree of balanced representation so there is not any actual or perceived excessive influence by specific sector or individual stakeholder interests.

8. Open and accountable process

A credible program must be based on an open and accountable process that can be observed, monitored and questioned at any time. At each process step, fair, consistent and uniformly applied procedures must be established. A good quality management system is a strong asset and highly desirable. Also, public criteria review is an essential feature of an open process. Some programs publicly announce new draft criteria through media and government information networks. Others hold public hearings or directly contact stakeholders/interested groups requesting comments. The comments received through these various means are then taken into account in preparing the final criteria.

9. Flexibility

In order to be credible and effective, programs must operate in a business-like and cost-effective manner consistent with market forces and requirements. They must be able to respond in a timely way to technological and market changes. This requires, for example, periodic review and, when necessary, update of both environmental award criteria and categories, taking into account technological and

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marketplace developments. Periodic review (usually every three years) ensures that standards and

criteria levels keep pace with new developments. Many programs allow for standards to be upgraded at any time, while granting licensees a specified period of time to meet the revised standards.

10. Consistency with ISO 14020 and ISO 14024 guiding principles (or other appropriate documents)

As the acceptance and adoption of the ISO 14000 series of standards by industry and governments continues to increase around the world, it may prove advantageous for ecolabelling programs to demonstrate consistency with the guiding principles contained in the relevant ISO environmental labelling standards (refer to **Boxes 3 and 4**). Such consistency could provide greater perceived legitimacy and soundness for ecolabelling programs in place and under development. Nevertheless, Global Ecolabelling Network (GEN) officials have initiated efforts to devise and implement a "GEN Guiding Principles" document pertinent to the development, management and operation of ecolabelling programs/schemes.

Box 3: ISO 14020 -- Guiding Principles for Environmental Labelling (including Type I - Ecolabelling)

accuracy
avoiding unnecessary trade barriers
scientific basis
provision of information on methodology
life-cycle approach
allowance of innovation
minimal administrative burden
open, consensual process
provision of information on products

Box 4: ISO Guiding Principles for Ecolabelling Programs [contained in ISO 14024]

Major Participants

Multiple stakeholder participation in any ecolabelling initiative is important to its overall impact and success. While no two programs are identical, most involve the participation of the following groups [also refer to **Figure 1** below]:

Government

Many programs are initiated and funded by government departments or agencies. Besides providing input (directly and/or indirectly) in program development, management and delivery areas, government at different levels can exert significant influence and demand through its procurement initiatives and activities.

Program management authority (i.e. Program Managers)

An independent body typically oversees and directs the program delivery activities (e.g. technical, marketing, and administrative aspects). The level of involvement in delivery may range from co-ordinating functions and liaison among different delivery agencies to performing the actual day-to-day operational tasks.

Industry and commercial associations, retailers and companies

Industry and commercial sector awareness, interest and direct involvement are essential to program success. Formulated criteria for certification and licensing must be credible and practical in the market place. Industry and retail involvement is key in this regard. Industry and commercial sector guidance and support from the outset and in all program facets is desirable. It should be recognized that industry represents product producers and service providers, as well as procurers.

Consumers

Consumer demand -- whether in households, institutions or corporations -- generates market impact. Consumer requirements and preferences must be determined, recognized and reflected in various program initiatives and outputs.



Figure 1: Ecolabelling Participants*

* "Government" is not identified in this Figure, since "Government" may serve different roles under different programs, or may assume different roles at various stages in the evolution of an ecolabelling program.

Interested parties

The credibility of a program can be enhanced through the involvement and support of various organizations, groups and individuals with no direct commercial interest in ecolabelling. Conversely, omission of such groups can jeopardize public confidence and acceptance.

- Academia

Incorporating leading-edge research and expertise into the criteria development and review processes can improve the quality, cost effectiveness and efficiency of outputs.

- Media

Important group for promoting ecolabelling to consumers and industry.

- International Community

This broad category may include foreign consumers, industry representatives and participants, and other potential non-domestic interested parties (i.e. academic experts, media, NGO's, etc.). With the globalization of markets has arisen an increasing requirement for ecolabelling programs to expand their consultative efforts beyond domestic borders.

Overview of Key Steps

Assuming program management officials have acquired a general knowledge and understanding of environmental priorities to be considered and addressed through their ecolabelling program, program delivery generally involves three basic steps:

- 1. Selection and determination of product categories;
- 2. Development and adoption of appropriate criteria, standards or guidelines (including: development, public review, and finalisation/announcement); and
- **3. Certification and licensing** (including: application, testing and verification, and license issuing).

1. Selection and determination of product categories

The selection of categories is a critical part of the ecolabelling process, since it has a major impact on the eligibility of specific products. The extent of the category can also determine the stringency of the criteria for certification. For example, in the case of batteries, a different approach will be taken if all batteries are considered rather than only rechargeable ones. As far as possible, the determining factor is normally inclusion of all products that routinely perform the same function.

Proposals for certification criteria categories are generally accepted from any source. In practice, most proposals arise from industry, or internally from the program managers. Trade, consumer, environmental and other public organisations can also request consideration of specific categories. After formal review, often with technical advisory groups, selections are made. Most programs also have some guiding principles to assist in selection. These often include the environmental impact of the product, the degree of differentiation between products within the proposed category, and the importance of the product in the marketplace.

2. Development and adoption of appropriate criteria, standards or guidelines

Once product categories are selected, the requirements that an applicant must meet to be approved by the ecolabelling program must be established. Technical and scientific specialists, generally from both government and the private sector, prepare draft criteria that are then made available to interested parties for consideration and feedback. Comments are received and reviewed by program staff, technical experts or an advisory group, and are reflected when appropriate in the final criteria.

The complexity and limitations of full life-cycle assessment methodologies have led to the use of relatively simpler and less comprehensive methods of environmental performance review. After consideration of the life cycle of a product, programs usually focus on a few key attributes -- such as recycled content, reduced toxicity, pollution reduction, energy efficiency and capacity for recycling -- and assess the range of industry performance in these chosen areas.

No matter the method of analysis, selection of certification criteria is a difficult task. Each program using life-cycle review is doing it in a different way. Given that none are conducting a comprehensive life-cycle assessment, each is open to challenges that its criteria selection is based on a limited number of attributes. Added to this concern is the need to compare and give value to different kinds of impacts.

Studies of ecolabelling strategies and practices have raised several important questions related to these concerns. If, for example, a new production method significantly reduces the load of water pollution, but at the same time increases the use of fossil fuels and air pollution emissions, is the new method to be regarded as environmentally more sound than the old one? How can one compare the impacts that occur today with those that are expected in the future? Is the standard economic method of discounting future costs and gains appropriate with regard to environmental issues?

In spite of these difficulties, there is a trend to move towards more comprehensive life-cycle reviews and closer co-operation among programs to try to harmonise criteria where possible. Also, program officials in some countries have elected to generally focus on a limited number of key environmental criteria.

In a few specific instances, particular program officials have implemented and applied "load point" rating methods. Under such systems, points are awarded according to the level of compliance with certain established criteria rather than requiring that the applicant meet all requirements. Applicants achieving a certain score then become eligible for certification. Although this type of system raises concerns regarding too much flexibility on environmental protection issues, it does give potential applicants greater scope in developing methods to reduce environmental stress.

3. Certification and licensing

When certification criteria are established, applicants (e.g. manufacturers, suppliers, distributors, importers or service providers who decide to participate in a program through having their products determined to be in compliance with the criteria) may apply for certification under the program. This process involves compliance verification and testing, applicant licensing and monitoring.

Applicants are usually required to submit technical information (e.g. test reports, evidence of compliance with the law/regulations, evidence of a quality management system, etc.) with their application. In addition, the implementation body may direct and/or perform an on-site audit or inspection. In some cases, independent verification is carried out by the program, and in others, a declaration by the applicant is accepted on the assumption that competitors or environmental groups will notify program officials if there is a suspicion that inaccurate information has been provided. Applicants generally pay an application fee and the costs of verification.

Once the applicant is licensed to use the label on, or in association with its certified product(s) or service, an annual fee is charged for use of the ecolabel.

Certification requirements and costs must be carefully and thoughtfully devised in order not to discriminate against some segments of industry, notably small- and medium-size enterprises that can encounter program participation difficulties.

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Measuring Success

How effective is ecolabelling in achieving its objectives? How can "success" be measured? With a majority of national ecolabelling programs having only been established in the last decade, efforts to measure effectiveness are incomplete. Nonetheless, positive responses of industries and consumers suggest that ecolabels are perceived as useful marketing tools and generally accepted symbols of environmentally sound consumer choices.

Given the difficulty in separating out the impact of ecolabelling from other economic, environmental and social policies, few programs have tried to claim direct environmental benefits from ecolabelling. Nevertheless, efforts so far to measure the effectiveness of ecolabelling programs have generally focused on such indicators as the improvement in environmental quality of certified products, industry participation, and consumer recognition.

Improvement in environmental quality of certified products

Over time, the success of an ecolabelling program is partly demonstrated through higher environmental standards for products. Most ecolabelling practitioners support the need to and implement routine review and revision processes to address technological and market advances, especially for product categories in which certified products and licensees exist.

Industry participation

An ecolabelling program is a voluntary policy instrument, using the marketplace rather than regulation to achieve environmental goals. It therefore has to offer something to businesses to encourage them to participate. Producers and service providers must be confident that being part of the program will improve their situation in the marketplace and/or enhance their corporate image. Credibility aspects are important to them as is a fee structure that is reasonable, fairly assessed, and does not discriminate against companies based on size, location or other general factors.

In measuring industry participation, most ecolabelling programs can report a substantial and continuous increase in both criteria categories and certified products against the criteria. The growth in categories alone, however, may not be indicative of industry interest, as some categories may not have many (or even any) corresponding licensees.

On the other hand, an increase in certified products indicates that producers and/or service providers see advantage in displaying the ecolabel. Consumer surveys testify to a consistent preference for products that are perceived as environmentally positive. While consumer focus may shift from one criterion to another (e.g. from packaging, to elimination of toxic substances, to preservation of wildlife), the willingness of a large proportion of consumers to choose "green" products and pay a premium for them has been regularly confirmed. (Nevertheless, surveys have also shown that superior environmental performance generally only becomes a key competitive factor once product performance, quality and value have been established.)

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An expanding number of licensees is another success indicator. Other success indicators relating to industry participation are the levels of voluntary "drop-outs" and determined instances of non-compliance. The more successful a program, the greater the potential costs associated with leaving or being de-

licensed.

Another indicator, which some programs have begun to encounter, is the revoking of a certification criteria standard due to overall industry improvement making the initially developed environmental leadership criteria no longer appropriate (or necessary).

One other success indicator area is overall industry involvement in criteria category selection, criteria development and review, and marketing activities incorporating an ecolabel.

Consumer recognition and demand

Consumer recognition and demand is critical to the success of an ecolabelling program. Without evidence that the program promotes its activities and licensees, and consumers recognise and trust the ecolabel, it is difficult to enlist and maintain industry participation.

It takes several years to build consumer and industry confidence. A key task is to ensure that information about the ecolabel and the certified products effectively reaches consumers. Tracking consumer recognition, therefore, has been an important feature of many programs. Surveys indicate that recognition also implies trust and the possibility that consumers will be motivated to make purchasing decisions based on their shared belief that the product chosen will cause less environmental damage than its alternatives.

The involvement of and support by environmental NGO's (i.e. non-government organisations), consumer organisations and the media are key factors which have contributed to increasing the level of consumer awareness of environmentally preferable products in certain countries.

In countries where consumer awareness of environmental issues is low, it may be difficult to convince companies that there is any advantage to be gained from an ecolabel. This suggests that some initial education work may be necessary prior to, or in conjunction with, the introduction of ecolabelling. Even in countries with a high degree of environmental awareness, initiatives have been undertaken to promote the ecolabel and the products that display it.

Beyond ecolabel recognition, consumer demand -- in the form of household, institutional and corporate purchases⁴ of ecolabelled products -- is a key success indicator. Greater impacts are also realised when ecolabelling criteria are used as "guidance tools" to identify greener products for government procurement and institutional purchasing. While opinion poll results can be helpful in assessing demand, purchasing patterns records are a more accurate means.

⁴ Internationally, emphasis is increasingly shifting from end-consumer to procurement purchasing in government, industry and institutions as part of corporate responsibility.

For more information on ecolabelling and the Global Ecolabelling Network (GEN), please contact GEN officials and/or visit the GEN Web site. The contact information is as follows:

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