

2004 – THE STATE OF GREEN PROCUREMENT IN AUSTRALIA



Acknowledgements

The field of green procurement brings together many disciplines ranging from life cycle analysis, materials flow analysis, and other technical environmental sciences to business management and administration, contract law and a technical understanding of goods and services. It is an interdisciplinary field delivering more sustainable markets in Australia. This publication was compiled by Good Environmental Choice – Australia (Australian Environmental Labelling Association Inc) with the support of contributions and research partners throughout Australia. The report was developed for the purpose of broad facilitation of the greener markets in Australia.

The AELA publication team:

Mr Petar Johnson – AELA (Editor and publication management)
Ms Joelle Bou-Jaoude - AELA (Research and publication planning)
Mr Richard Davidson – AELA (Editorial)
Mr Nicholas Travers – AELA (Research).
Mr Ian Oakey – External Editor

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FOREWORD

Australia stands on the threshold of economically powerful changes in markets on the basis of environmental performance of goods and services. The principles of sustainable consumption are starting to gain a foothold in market forces bringing with them an opportunity to better integrate environmental realities with market and consumption choices. This report was compiled for the purpose of measuring and understanding procurement attitudes, practices and policies relevant to Ecologically Sustainable Development in Australia. We believe Australia needs to measure and assess the rate of progress of sustainable procurement in order to evolve a comprehensive green procurement framework throughout Australia.

This report tries for the first time to provide a comprehensive picture of green procurement activities in Australia's institutions and the consumer environmental preference of everyday Australians. The findings point to a groundswell of government and corporate initiatives that are working hard to establish procurement measures and business practices that aim to implement the purchase and use of more environmentally responsible products and services.

The report finds that formal green procurement initiatives are challenged. This is primarily due to a lack of understanding of the different environmental factors of a product's life cycle in the face of very limited relevant environmental information being provided by manufacturers. Due to this limited information consumers are almost always unable to exercise their consumer environmental preference except for a very narrow range of products. It appears that currently this broad and general motivation and policy commitment to green procurement is being hampered by a lack of transparent, accurate and even basic information about the environmental impacts of the majority of products and services. This factor has restricted the pricing and demand signals required to reform markets and create incentives for corporate environmental innovation in product design and delivery.

New tools such as environmental labelling and declaration and the use of the ISO 14 020 series of standards regarding product environmental impact and preference are emerging and effective in correcting the current market environmental information asymmetry. The uptake of suitable instruments and approaches to ensure that the environmental information that is provided on products or by manufacturers is accurate, relevant and not misleading to consumers is important and the core responsibility of industry.



This market review finds that everyday Australians demonstrate very high levels of environmental commitment and are willing to translate this into consumption choice on a day-to-day basis. There has been a significant growth of green procurement initiatives developing a technical understanding and implementing systems delivering these objectives. There is increasing co-operation in green procurement between the different market actors in order to overcome these challenges. The development of consortiums of companies and institutions all working together to specify, procure and demand products which align with their environmental goals is a growing reality throughout the country. Participants have recognised that in numbers their economic power increases and their technical and educational challenges can be reduced by common investments into product reviews, education materials and training, technical know-how of appropriate factors to consider when procuring and the design and delivery of green procurement programs.

These developments all point to some very difficult questions of companies. Do manufacturers progress their market share with price or quality, noting that quality has now grown to include environmental performance? There is a significant hidden opportunity for business that to date has only been scratched at the surface.

The second wave of environmental and sustainability instruments are now entering Australia's environmental response. These include environmental taxes and credits and market demand signals. We can expect that market instruments will have a far greater influence on Australian societal shift towards sustainability than the previous round of voluntary-based environmental management initiatives. The opportunities for companies that have actually achieved good environmental performance are growing and will be a permanent feature of market competitiveness. Slowly companies are realising that the environmental test is simple – What is their environmental impact per unit of product in comparison to like products? The fanfare of corporate public environmental relations is being put to the test by green procurement initiatives and the results will be something of primary concern to all business – the bottom line.

This review of green procurement and consumer environmental preference in Australia was compiled with the help of a large number of active participants in this area in Australia. I wish to acknowledge that their valued contribution is based on solid hands-on experience. These contributors are from the active pioneers of this challenging and increasingly relevant field in Australia. This report aims to provide a comprehensive picture of green procurement in Australia. To the best of our knowledge this is the first time such a report has been compiled and we recognise that the undertaking is ambitious. The importance of

the topic calls for a beginning. In taking this first step we invite criticism and comment with a view to improving the analytical approach for subsequent editions.

I encourage you to use the information that has been compiled in this report to better understand the market characteristics of the environmental challenge in Australia in order to better shape your corporate and institutional directions. I am a firm believer that if we can get our pricing and market signals right then the transition to sustainability will be a lot easier, more efficient and swifter.



Petar Johnson
President Good Environmental Choice – Australia
(*Australian Environmental Labelling Association Inc*)

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CHAPTER 1: UNDERSTANDING THE MARKET MECHANICS AND INFLUENCE OF GREEN PROCUREMENT INSTRUMENTS

The challenge of achieving ecological sustainability is of crucial importance for us all, simply because ecological sustainability is the bottom line. If a society is not sustainable ecologically, it cannot, in the long term, be sustainable in any other way. That is to say, unless the ecosystems of which we are a part and on which we depend continue to satisfy our biological needs, then no amount of economic juggling or technological innovation will be able to keep us going. We are living beings, totally dependent on the processes of life around us for our very existence. These physical foundations to our sustainability challenge must increasingly come to the forefront of institutional green procurement policy objectives in Australia.

The current environmental and sustainability challenges internationally have led to the development of a wide spectrum of community, market and government initiatives seeking to shift society's evolution towards sustainable development. Green procurement initiatives are just one of these market response mechanisms of the sustainability challenge. It is hoped that their fundamental impact on market shifts and demand signals can make these initiatives some of the most important for transition towards sustainability. Their capacity to cover almost all areas of the market and influence transactions strengthen their capacity to influence social wide-market transition.

The principles of green procurement programs are to procure products and services with a preference for choosing products with lower environmental impacts as part of the overall purchasing decision. Programs have an overall aim to deliver consumption choices which reduce the ecological damage from consumed products during the production, consumption and disposal stages – that is along the product life cycle. How and why green procurement programs do this and an explanation of the current status of these activities among all major economic sectors in Australia is the aim of this publication.

"Humans have amazing ingenuity, when motivated. I emphasize the words when motivated. Thermonuclear weapons, computer technology and the elimination of smallpox are among countless recent manifestations of this fact. I believe it is well within the capacity of humankind to bring the ecologically destructive processes under control. Indeed, a lot of progress has already been made in some areas – for example, in research on clean sources of energy and in the recycling of certain materials. But so far, the overall effect of these developments has been minimal.

The key thing is new understanding throughout the community.

A biosensitive society will not come about without decisive new government action, no matter how many individuals try to lead ecologically-friendly lifestyles.

Changes in lifestyle – choosing to travel by public transport rather than private vehicle, increasing the energy efficiency of the home, putting solar panels on the roof - and, especially important, changes in voting behaviour as members of the electorate.

The transition will not come about, therefore, without strong and effective action on the part of government."

Stephen Boyden
Biohistorian

**GREEN PROCUREMENT – SUSTAINABLE PROCUREMENT
SUSTAINABILITY INSTRUMENTS FOR ECOLOGICAL PRIORITIES**

It is now well appreciated that the present trends in population growth and resource and energy use on our planet are not ecologically sustainable. The well-being of humankind, and indeed the survival of civilisation, will require major changes in patterns of human activity and the structure of society.

The concept of *population metabolism* can be helpful in our attempts to understand and monitor ecological sustainability. In the case of animal populations in the natural environment, the term population metabolism refers to a given population's inputs into the bodies of the members of that population of food, water, oxygen and energy, which is mainly in chemical form in food, and outputs of energy, mainly in the form of heat, and organic wastes, including carbon dioxide.

In human populations, however, as distinct from other animal species, population metabolism is complicated by the fact that, because of the human capacity for culture, our species uses materials and energy, and produces wastes, as the result of various technological activities performed outside our bodies.

This has been the case for hundreds of thousands of years – since our ancestors first started making tools and using fire. It has been estimated that the deliberate use of fire roughly doubled the use of energy by hunter-gatherers (from around 10 MJ to about 20 MJ per day). Thus in populations of humankind we recognise two aspects of metabolism:

- (1) bio-metabolism, which, as in other species, consists of the inputs, internal metabolism and outputs of the living organisms (humans)
- (2) techno-metabolism, which consists of inputs, internal metabolism and outputs of materials and energy resulting from technological activities performed outside the human body, today mainly involving various kinds of machines, but including the inputs of materials used, for example, in the construction industry and in making paper.

Some inputs into the economy, such as timber for construction purposes or for making paper, involve direct physical impacts on the natural environment – with undesirable consequence for biodiversity (e.g. logging of old growth forests). Other direct physical impacts from economic activity include the effects of the release of chemical and material wastes which degrade waterways, the quality of the atmosphere and health of organisms which populate the biosphere, including humans. The detailed analysis of the inputs, uses

and outputs of societal techno-metabolism is an essential tool for governments developing policies aimed at achieving ecological sustainability.

Reducing consumption - at an organisational level through Greener Procurement tools.

As a microcosm of this larger economic system is organisational metabolism via consumption choices and the use of ecological services by individual institutions. Measurement of these flows can aid in the delivery of environmental innovation and greener consumption choices from an organisational perspective.

Green procurement programs seeking to deliver the objectives of sustainable consumption must consider two core approaches.

1. To procure products with a lower environmental impact on the diverse elements of ecological systems throughout their life, including the stages of production, use and disposal.
2. To reduce the amount of materials consumed by any particular organisation, social group or individual after materials have been selected for environmental preference.

It is inaccurate to assume that a green procurement strategy can ignore the volume of procurement as a factor in the ecological objective of reducing environmental damage from procurement activities.

The understanding of a product's environmental life cycle is a crucial process for procurement professionals seeking to purchase products that have a lower impact on the environment in comparison to similar products. Procurement professionals have available to them reference tools in assessing and quantifying the diverse environmental impacts of products that look similar, perform comparatively and are a similar price, but due to the nature of their selection of material, their design, and the product stewardship of the manufacturer, may have very different environmental impacts. The difficulty of environmental performance comparison is compounded by the ecological complexity. Products may have quite different environmental impacts which cannot be easily compared – for example: biodiversity, climate change, water pollution, air pollution etc. How does a green procurement officer give priority to certain ecological and human health impacts over others? In many cases this becomes a value judgement. This judgement can be somewhat overcome by credible data and an understanding of feasible benchmarks of

good environmental performance of leading products across the full range of primary environmental loads.

The Science of Life Cycle Assessment – a tool for green procurement

Every product, process and service has an impact upon the environment. Using life cycle thinking can help our understanding of the types and degree of impacts and where they occur. Life cycle thinking can also provide information on how changes made in a particular stage of the life cycle affects impacts upstream or downstream.

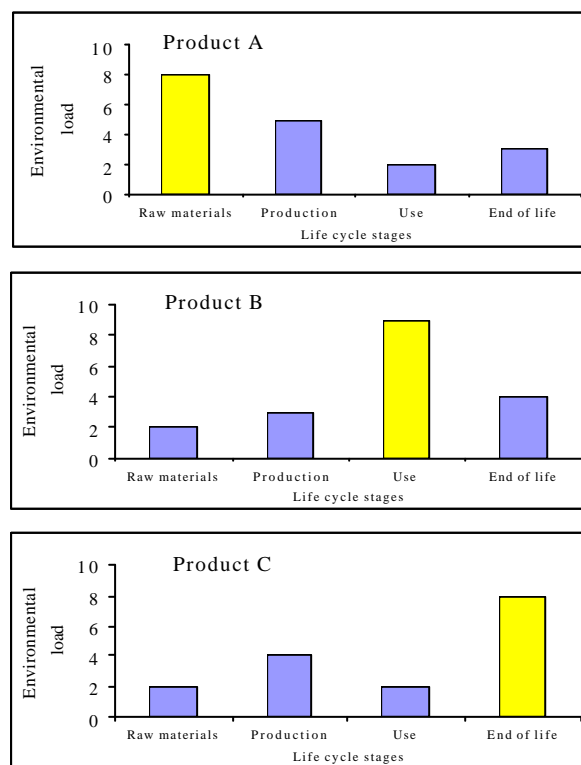


Figure 1: illustration of the diversity and degree of environmental impacts across the life cycle of various like products.

For example, the highest impacts of some products occur in the extraction of raw materials; for others it is during their use or disposal that higher environmental impacts occur.

Life cycle assessment (LCA) has developed as an environmental methodology that assesses the environmental aspects and potential impacts across the life cycle of products, processes and services. The life cycle encompasses extraction and processing of raw materials, manufacturing, transportation and distribution, use, reuse, maintenance, recycling and final disposal.

A four step LCA process outlined in the International Standardisation Organisation (ISO) 14040 standards includes the following:

- (i) Goal and scope of the study are defined;
- (ii) An inventory of relevant inputs and outputs occurring across the life cycle are collected and compiled;
- (iii) The potential environmental impacts of these inputs and outputs are evaluated (impact assessment); and
- (iv) The results of the previous three stages are interpreted.

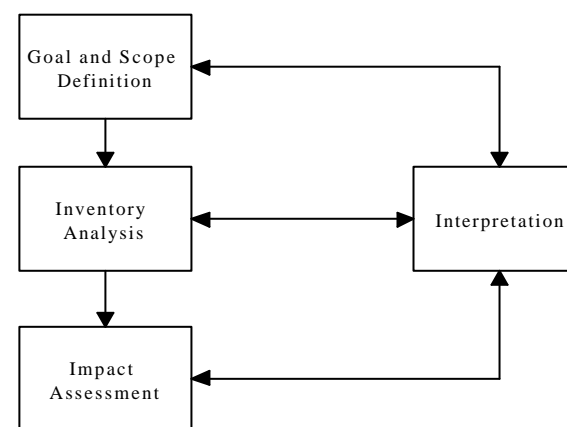


Figure 2: The flow of a life cycle assessment study.

Environmental impacts considered in LCA include greenhouse impacts, resource depletion, human and eco-toxicity, eutrophication, photochemical oxidation, water, land use and biodiversity. LCA can be used in an array of applications such as product and process improvement, strategic decision-making, eco-design, product comparisons, eco-labelling, marketing and public policy development. There have been suggestions that LCA should be viewed as a *learning* device used to identify the impacts generated by activities. Increasingly LCA provides valuable intelligence to guide strategic and tactical decision making in regards to technology evaluation, product development, industry benchmarking and ecological profiling.

In the context of procurement, life cycle analysis provides a quantifiable methodology to undertake a comparative assessment of two like or many similar products. The international standards for life cycle assessment allow accepted methodological approaches to the boundaries of the analysis, the right environmental impact groups to be measured for each product type, and suitable substitution and resource credits that can be awarded for using natural or recycled materials. The life cycle methodology is a comprehensive, scientifically rigorous tool for use in green procurement systems. New LCA research is however expensive to undertake. The use of existing LCA data and results that is now readily available on-line can aid procurement programs in identifying the right environmental criteria to prioritise in tender and other procurement contracts. In order to streamline the technical challenges of LCA for procurement officers, life cycle based environmental labelling and environmental declaration programs have evolved to deliver a credible third party result on the environmental performance of certain products using this methodology. These programs interpret LCA results, develop criteria which benchmark leading product performance and can effectively discriminate between products on environmental requirements through on site verification and product assessments. They deliver complex information in an accessible and simple format to consumers and green procurement programs. LCA can be performed at different levels. Two known approaches are 'streamlined' or 'full'. In a streamlined LCA, public data is generally used along with company or supply chain data and enables scoping of key impacts and issues. A full LCA builds upon a streamlined LCA and includes more detailed information collected from companies operating in the supply chain under study. The choice of which type of LCA to perform depends upon the goals of the study, time and cost restraints, along with the level of detail and accuracy of the data available to model the product system.

LCA is not suitable for evaluation of very local impacts as it aggregates impacts across the whole production and usage life cycle. For local environmental impact assessment, material flows analysis and risk assessment are still needed to determine if production activities are going to have adverse effects on the local environment in which they are situated. The output of this methodological approach for green procurement is a set of quantified impact measures across a diverse range of environmental loads. Ideally the methodology is most suitable as a comparative analysis between two products or between a set of consumption and behavior choices. In undertaking an LCA the environmental impact loads are aggregated along the life cycle of the product. The life cycle of Portland Cement production is shown below:

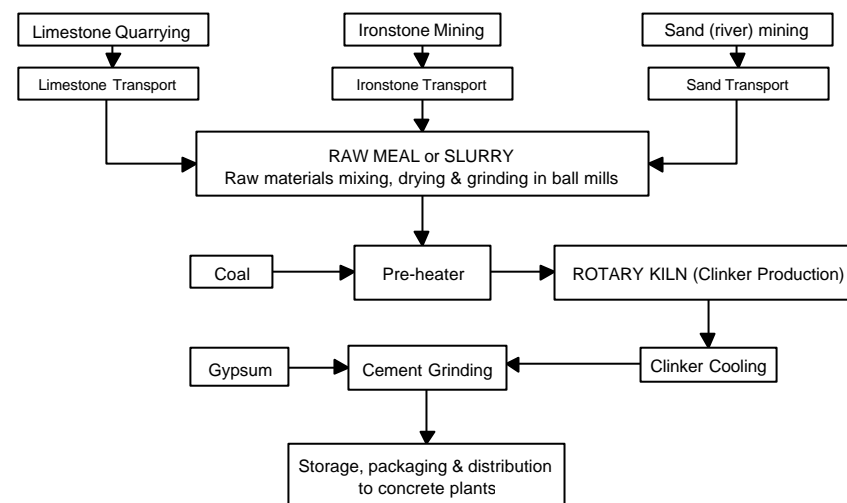
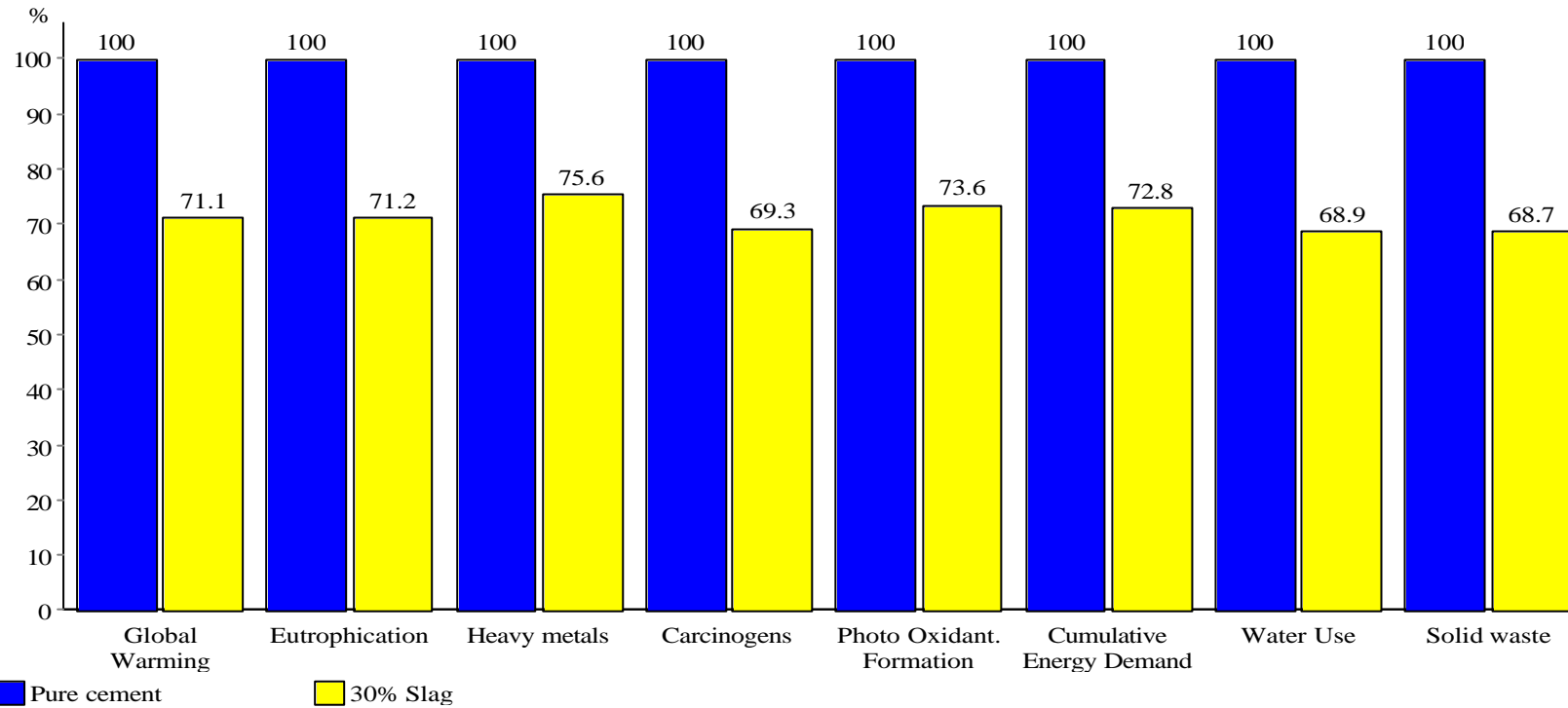


Figure 3: Breaking down the different stages of manufacture can aid the quantification of different environmental impacts along the product life cycle



Comparing 1 kg material 'Pure cement' with 1 kg material '30% Slag'; Method: SimaPro 3.0 Eco-indi Austalian Database / Australia revised / characterisat

Figure 4: Results of the LCA. A comparison of pure cement against 30% slag blended cement (Pure cement has been set to 100% and blended cement is shown relative to that).

Simplified LCA based tools - and other solutions for the Green Procurement Professional

A number of important approaches to overcoming the technical, information and education challenges in the field of green procurement have arisen in recent years in Australia. Their primary objective is the delivery of suitable environmental performance information for procurement professionals and consumers in order to encourage and support green procurement initiatives.

The primary approaches at this time in Australia are:

1. **Green Procurement Checklists** (Typically in an institutional setting): These seek to provide a template of ecological impacts of product types which should be considered by the procurement professional. Typically these list the main environmental impact factors along a product life cycle and allow the procurer to seek appropriate information from the manufacturer and undertake a comparative analysis. While these checklists are important, certain limitations are encountered in the analysis stages where it is difficult to make judgments of one environmental impact over another. Similarly some checklists include broad environmental performance criteria such as “Does a company have an ISO 14001 Environmental Management System?” which is not an indicator of the environmental performance of the product or service. Unless checklists are developed with a focus on the environmental loads of products they can be misleading and/or inaccurate and lead to disputes on the environmental credibility of the commercial selection processes.
2. **Green Procurement Networks** The establishment of these networks facilitates learning, information sharing and collaborative relationships between green procurement professionals. These are cultural and relationship driven professional networks allowing information flow and know-how to be shared between procurement professionals in order to improve understanding of green purchasing and knowledge of different products types and their respective ecological impacts. Examples of these are the US Environmentally Preferable Procurement Network and the Victorian ECO-Buy local government and stakeholder network. The green

procurement networks are typically a supplementary measure to individual research and self-established systems. They are also available for everyday consumers as forums on advice and information sharing on green purchasing issues.

Some of these networks have specific industry sectors that they wish to facilitate. They deliver intellectual property and know-how and tools specific to their members, invest in required solutions to the diverse needs of their members and help establish credible green procurement programs as the norm, often within a political and institutional setting. They allow a groundswell of support and momentum towards a common environmental goal of members.

3. **Independent Organisations and Ecolabelling Programs.** These organizations act to enhance the asymmetry of information between procurers and consumers regarding the ecological and/or social performance of products and services. As independent professional organisations they act as research and certification organisations seeking to declare with credibility the environmental credentials of product groups through an auditable or regulatory process. These schemes often lead the debate on the relevant environmental characteristics of a product type and are an easy source of guidance for all tiers of the market. They typically are a bridge between the complex environmental and social effects of the product life cycle and the requirement for simple and meaningful information for green procurement programs and everyday Australians.

**AN OVERVIEW OF MARKET, ENVIRONMENTAL AND SOCIAL EFFECTS
OF THE INDUSTRY FORERUNNERS TO FORMAL GREEN PROCUREMENT
PROGRAMS – THIRD PARTY ECOLABELLING SCHEMES**

The environmental effects of green procurement programs is yet to be collated in an extensive form within Australia and around the world. It is hence difficult to present results for these programs. Relevant information as to environmental, market and social effects of market-based environmental information and declaration instrument which trigger consumer environmental preference is a useful preliminary indication.

Environmental labels and declarations provide information about a product or service in terms of its overall environmental character, a specific environmental aspect, or any number of aspects.

A diverse range of voluntary and mandatory environmental declaration and labelling systems already operate in Australia, seeking to offer consumers choices about the environmental and social impacts of the products and services they buy. An overview of the well recognised national programs is available in **Appendix 1**.

The overall goal of environmental labels and declarations is to encourage the demand and supply of environmentally preferable products by delivering a seal of good environmental performance of the verified product or service. The international standard ISO 14 020 states the formal objectives as “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.” (ISO 14 020 – objectives).

Only some of the environmental labelling programs in operation comply with the ISO 14 020 methodology in Australia but all have the general objectives outlined in the international standards.

The commercial drivers for industry to participate in independent ecolabelling programs.

Purchasers and potential purchasers can use ecolabelling information in choosing the products or services they desire based on environmental, as well as other considerations. The complex technical requirements of such an environmental purchasing decision can be overcome if the purchaser has confidence in the program. On the other side of the transaction, the supplier of the product or service hopes the environmental label or declaration will be effective in influencing the purchasing decision in favour of its product or service.

If the environmental label or declaration has this effect, the market share of the product or service can increase and other providers may respond by improving the environmental aspects of their products or services to enable them to use environmental labels or make environmental declarations, resulting in reduced environmental stress from that product or service category.

From an industry perspective if their green products are to achieve a reasonable market share and to tap into latent green procurement opportunities, third party environmental labelling and credible environmental information are a key factor in commercial success.

Environmental labels allow the environmental declaration to be used consistently in the different markets with credibility due to the fact they are endorsed by third party accreditation. Across Europe where these labels have had a longer lifetime, their popularity for industry has increased since manufacturers use them as a marketing tool for not only positioning the product's image but also to differentiate their products from other conventional products.

Environmental labelling provides support to a firm in two ways:

1. Products endorsed should be 'environmentally preferable' i.e. having a reduced impact on the environment in comparison to like products, thereby enhancing consumer confidence in their products and delivering a competitive edge.
2. The second market result of environmental labelling is to project a green image that can transcend to an image of corporate environmental responsibility by being 'environmentally sensitive' to stakeholder groups, that includes owners,

suppliers, employees, government regulators and the community at large, thus delivering a corporate environmental reputation.

A review of the market, environmental and social effects of overseas environmental labelling and declaration programs are a useful guide in assessing how market signals can work towards sustainable consumption. As green procurement programs establish themselves in a more comprehensive fashion in Australia it is expected that the effects of green procurement programs can be more easily measured.

The Blue Angel – Germany

A 2002 study¹ on the Blue Angel label summarised the findings of a range of studies which have attempted to evaluate the market impact of the programme and its impact on marketing strategies of companies.

The main findings were that:

- A major impact could mainly be observed in those product categories that are interesting for professional purchasers and public procurement (e.g., the market share of Blue Angel-labelled paints was above 60% in the do-it-yourself sector, but only 20% in the handicraft sector.
- Label-using companies are more-or-less equally represented among small, medium and large companies.

Micro-economic benefits of individual forerunner companies disappear over time as other companies enter the market with environmentally-improved products. Smaller companies reported the greatest impact on their market position, whereas medium-sized companies were among those that often observed little or no effect on their market share.

¹ Müller, Edda (2002), "Environmental Labelling, Innovation and the Toolbox of Environmental Policy – Lessons Learned from the German Blue Angel Program",

Other programs

A 2001 New Zealand study² sees an important contribution of the Environmental Choice label in promoting economic efficiency, but recognises that, due to lack of formal studies, the actual market impact of the label could not be assessed.

According to a 2002 Japanese survey³, eco-labelling has a significant market impact in Japan. It estimated that the market size of four out of five examined product categories exceeded 10 billion yen in 2001.

² New Zealand Ministry of the Environment (2001), Public Good and Environmental Labelling,

³ Eco Mark Office/Japan Environment Association (2002), Market Survey 2002 – Survey of Market Share of Eco Mark Certified Stationary Products,

The estimated market share of Eco Mark-certified products ranged between 8.7% for ballpoint pens and 24.2% for correction products. However, while the overall growth in most product categories was stagnant in 2001, producers of Eco Mark-certified products realised a rapid growth in sales.

The Korean label results of market studies in 2004⁴ show the ratio of certified products to the corresponding product category is 3.4% in average, with peak of 45.8% for fluorescent lamps and 28.4% for paints and gasoline engine oil. The market share of certified products is expected to grow continuously owing to the increasing participation of industries in the programme.

Effects of Environmental Labelling and Declaration Programs on the Environment.

The Blue Angel – Germany

The 2002 study on the Blue Angel concluded that several environmental improvements could be attributed to the existence of the Blue Angel label.

For example, it:

- initiated the breakthrough for eco-labels (being the first national eco-label, Blue Angel triggered the development of many other eco-labels often serving them as a model);
- contributed to the development of a more environmentally conscious market (and market behaviour);
- helped setting standards in regard to (i) product development and manufacturing, and (ii) directives and support programmes;

⁴ Korean Environmental Labelling Association (KELA) (2004), "Social costs and benefits of Ecolabelling".

- contributed to a systematic approach in decision making (life cycle assessment); provoked a 'Europeanisation' of environmentally preferable products (helping some product groups to prevail on the European market thus strengthening the market position of manufacturers of such products);
- had a multiplier effect (raising public awareness for environmentally preferable products beyond the labelled product group).

Other Programs

In 2001, a research institute (LG Environment Institute) estimated the environmental benefits of the Korea Eco-Label certified products in 2001 using the replacement costing method, and in 2003, KELA recalculated the environmental benefits using updated data based on the same model suggested by the institute⁵.

The basic idea of the study was to identify the difference in environmental performance between the certified products and conventional products and to calculate the cost saving effects (e.g. saving of energy cost, material cost, remediation cost for pollution and health risk) of the certified products. The average estimated environmental benefit of the certified products covered by the study amounted to 130% of their retail price.

The study on New Zealand's Environmental Choice label⁶ also discussed the role of eco-labelling as part of environmental policy-making. Eco-labels to make the public aware of the environmental impacts of consumption and can therefore be employed to influence national policies. For instance, the Environmental Choice label created a market for recyclable material by emphasising the use of recycled materials in products.

⁵ Korean Environmental Labelling Association (KELA) (2004), "Social costs and benefits of Ecolabelling".

⁶ New Zealand Ministry of the Environment (2001), Public Good and Environmental Labelling.

Effects of Environmental Labelling and Declaration Programs on Consumers

A study on the Nordic Swan label⁷ analysed the impact on purchases of various brands of toilet tissue, kitchen paper towels and compact laundry detergents in Denmark over the period between 1997 and 2000. Based on detailed shopping diaries from a wide sample of Danish households, the data covered around 90,000 individual purchases of three consumer goods. Over the period, 13 of 32 different brands of toilet paper on the market carried the Swan label, as did 9 out of 26 brands of paper towels and 3 brands of detergents. Consumers showed a 'willingness to pay' 10-17% more for eco-labelled toilet paper and a similar extra proportion for labelled detergents. Little or no effect was detected for kitchen towels.

The study concluded that (Danish) consumers were willing to act on an environmental label even though the products did not provide any direct additional benefit to the users; this indicates the presence of altruistic motives. Among the reasons cited for this were the following factors: consumers seem to have great confidence in the government (which certifies the label); environmental issues receive substantial attention in the media; and there appears to be wide acceptance of policies pursuing relatively ambitious environmental goals.

The Japanese study⁸ analysed corporate and consumer purchases of five Eco Mark-certified products (ballpoint pens, mechanical pencils, marker pens, correction products and notebooks). It concluded that the proportion of corporate purchases of these labelled products was significantly larger than that of consumer purchases.

The Korean eco-label study⁹ reported two surveys on consumer awareness of the label, carried out in 1999 and 2001. According to these surveys, it would seem that more than half of the Korean population recognised the logo of the Korean Eco-label, and more than 70% have heard of it. While 72.5% of the surveyed people had

⁷ Bjørner, Thomas Bue et al. (2002), The Effect of the Nordic Swan Label on Consumers' Choice,

⁸ Eco Mark Office/Japan Environment Association (2002), Market Survey 2002 – Survey of Market Share of Eco Mark Certified Stationary Products,

⁹ Korean Environmental Labelling Association (KELA) (2004), "Social costs and benefits of Ecolabelling".

experience in purchasing environmentally friendly products, most of them said "they did not see the label on the product" and only 16.8% had actually purchased a product with the Korean eco-label.

Effects of Environmental Labelling and Declaration Programs on Manufacturers

The 2003 study on the Blue Angel label¹⁰ identified this label as a communication tool allowing environmental benchmarking. The Blue Angel label encourages producers to assess the environmental impacts of products over the whole life cycle. However, even for companies that do not apply for it, the label seemed to play an important role in the production processes, and the selection criteria helped orient many companies' R&D activities and internal requirements for construction departments.

The study also looked at the effects of the label on innovation, which it defined, as "all changes of the life-cycle of a product – major or small – resulting in a reduction of pollution". "Diffusion" addresses "the degree and rate of market penetration of the improved products". On the basis of a few examples that show a mixed picture as regards the contribution of the Blue Angel to solving product-related environmental problems, the study concluded that the environmental effectiveness of voluntary environmental labelling and its usefulness for overall environmental policy depends very much on the nature of a product category.

One fact that, according to the study, slowed down the diffusion of eco-labelled products was the fact that the environmental performance in some product categories (e.g. detergents and household appliances such as washing machines, dish washers, refrigerators) has improved dramatically over the past decades while environmental claims have become common advertising means. This has led to a decreasing interest of producers in applying for the Blue Angel. Another factor is that producers often offer a variety of models on the market, and may therefore hesitate to label some models for fear that this could adversely affect the rest of their product line.

¹⁰ Eberle, Dr. Ulrike and Reuter, Wolfgang (2003), Evaluation 25 Jahre Blauer Engel. Endbericht

The Japanese study found that 62% of companies experienced increased sales of their Eco Mark-certified products, while only 10.3% stated the opposite.¹¹

Furthermore, the study revealed that corporations are the main clientele for Eco Mark-certified products. This fact is reflected in the answers of manufacturers when asked about corporations' and consumers' interest in Eco Mark-certified products: while 96.7% of the companies replied that corporations (businesses) had shown interest, only 31% confirmed interest by consumers.

The study¹² on New Zealand's Environmental Choice label came to similar findings. It stated that "there is trend towards businesses seeking environmental labels for products sold to other businesses, rather than to the household consumer. As more businesses adopt green procurement policies they look to suppliers to deliver more environmentally friendly products." According to the study, industries' behaviour worldwide has changed making improvements to their environmental performance as they strive to meet consumers' increased demand for environmentally-friendly products. This also has an influence on suppliers since manufacturers are increasingly demanding proof of their products' environmental soundness in order to prevent future liability or negative publicity.

Effects of Environmental Labelling and Declaration Programs on Consumers in Australia

In most cases, consumers are unaware of regulations or the implications that permit businesses to place environmental marks, statements or labels on their products. This may perhaps be one of the reasons why there is confusion over product claims as well as insufficient promotion campaigns on eco-labelling in Australia.

¹¹ Eco Mark Office/Japan Environment Association (2002), Market Survey 2002 – Survey of Market Share of Eco Mark Certified Stationary Products,

¹² New Zealand Ministry of the Environment (2001), Public Good and Environmental Labelling,

Consumer scepticism about questionable product claims is the result of widely recognised advertising and self-branding by manufacturers of questionable environmental declarations over the last 15 years. To compound this there has been inefficient advertising about environmental labels, in particular what they are and how to assess if a product is environmentally preferable. In order to determine the usefulness of environment labelling, consumers must also be aware that a third party endorses these labels. In particular, consumers are unaware that these third party verification programs could eliminate their concerns such as misrepresentation about environmental attributes, lack of transparency as to methods, truthfulness and comprehensiveness of declarations and whether they are based on sound science. .

Research has identified three major problems facing environmental marketing - false advertising, the lack of any common standards for evaluating environmental claims and negative attitudes often exhibited by green consumers towards corporations. False advertising and the lack of common standards for evaluating environmental claims would not have been a major issue had adequate and accurate labels substantiated those products in the first place. Basically, in the eyes of a consumer, the focus of green consumerism is primarily on the final product itself and on the overall image of a company.

Some of the conclusions drawn in research conducted recently¹³ indicate that marketers should also take note of consumer preferences while advertising. For example, the research indicated that showing product recycling symbols, emphasising how consumers will obtain benefits, clarity of environmental claims and advertisements having to show environmental labels based on third party accreditation were very much in favour by green as well as non-green consumers.

Preliminary information is now available on consumer recognition of various Australian ecolabelling programs from over 1200 people surveyed in Victoria¹⁴

¹³ D'Souza,C. (2004). An investigation on consumer perceptions of green adverting. Proceedings in the third International Conference on Research in Advertising, Norwegian School of Management,.

¹⁴ D'Souza,C. (2004). An investigation on consumer perceptions of green adverting. Proceedings in the third International Conference on Research in Advertising, Norwegian School of Management,.

Victorian consumers when asked earlier this year as to whether they recognised the following ecolabels showed the below results:

- **Green Power** (26.6% answered 'Yes', 73.4% answered 'No'),
- **Good Environmental Choice Australia** (14.5% answered 'Yes', 85.5% answered 'No'),
- **Australian Certified Organic** (4.8% answered 'Yes', 95.2% answered 'No'),
- **Green Globe 21** (10.1% answered 'Yes', 89.9% answered 'No').

The Victorian survey further analysed consumer perceptions, finding that consumers feel that environmental labelling is easy to understand. Furthermore, when asked how important is environmental labelling provided by third party accreditation – the average response was that this was highly important. These findings illuminate some aspects of suggesting that environmental labelling can be a powerful strategic tool.

Australians tend to use environmental labels and declarations when they are available on the product. A survey by the NSW EPA¹⁵ demonstrated that:

Eight out of ten people surveyed say that a vehicle's environmental rating would influence their purchasing decisions.

- **40%** of people say it would be a significant influence.
- **40%** say it would be of some influence.
- **11%** feel such a rating would be of little influence in their purchasing decision.
- **7%** say such a rating would be of no influence.

¹⁵ Department of Environment & Conservation NSW (2004) Who Cares for the Environment 2003:

Nearly nine in ten people agree that an environmental rating on planned building designs, or on choice of materials or fittings and appliances, would influence their decision when building or renovating a home.

- **51%** say that an environmental rating would be a significant influence in decision-making.
- **37%** agree such a rating would be of some influence.
- **3%** say that such a rating would be of no influence.

A proprietary NSW survey of 1181 consumers at the point of sale (within shopping centres) shows that 13% recognised the Good Environmental Choice Label.¹⁶

Another survey¹⁷ of 500 consumers during market testing of the new Greenhouse Friendly Label showed that most consumers do look for logos at point of sale and that recognition of symbols was said to be important. Usually logos were generally accepted at face value giving them confidence in the purchasing decision and generally perceived as true. Some consumers often however question the independence of such eco-labels.

Consumers expect retailers in particular to be an important source of information about eco-labels and the public expected retail staff to be reasonably informed. Point of sale information in particular was wanted with local information and general media in order to deliver public confidence.

Other contributions to the Australian market by environmental labels and declarations

Besides being useful to target green consumers, there are two other ways these labels seem beneficial:

¹⁶ Unpublished survey of shoppers in Sydney from private commercial sources. 2002.

¹⁷ Unpublished market survey by the Australian Greenhouse Office for the Greenhouse Friendly certification scheme 2001.

1. The commercial benefits of environmental labels help firms commit to a wider implementation of environmental excellence as a corporate strategy. To the extent that a commercial advantage can be gained it may lead to more cooperative relationships between businesses and government regulators and reinforce proactive rather than reactive environmental protection measures. Another advantage of certifying under these labels is that they complement the traditional environmental regulatory requirements and industry standards through a voluntary commercially advantageous instrument. In addition, the idea of integrating personal values, social and environmental concerns with investment decisions is a recognised public image goal for many firms which on a regular basis issue press releases, initiate public relations and publish information about their environmental performance initiatives. It is expected that certification from environmental labels would assist in justifying corporate claims on environmental responsibility that must be authenticated to the public that requires some independent verification. The technical approach of certain labels can also assist firms to improve all around environmental efficiency.

2. International trade calls for a potentially new way by which manufacturers will trade environmentally preferable products in the international markets, given the current global strength of free market ideology. Environmental labels hope to facilitate international trade and remove trade barriers on the basis of product environmental performance. Independent environmental claims are particularly important in international trade as firms can make assertions about environmental performance and there are few ways of addressing veracity. Where governments want to impose a tariff on imported goods on the basis of environmental damage, in some instances, the World Trade Organisation has not opposed the use of environmental labelling which has been perceived as a 'market friendly' alternative to mandatory policies such as tariffs.

There is growing evidence that supports environmental labelling as a powerful strategic tool and if firms invest in these environmental labels wisely they will be successful not only in targeting green consumers but also in international trade. The commercial driver for business continues to be reaping long term profits arising from social shifts towards sustainability.