Eco-labelling. A Socio-economic Analysis.

Williams, Wendy

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Eco-labelling: A Socio-economic Analysis

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Abstract:

Due to the interdisciplinary nature of eco-labelling, the sense of the phenomenon itself is lost when studied in isolation. With this consideration, a balance of research between practical and theoretical approaches, between environmental sociology, environmental economics, international trade relations, consumer society, sustainability and marketing theory was explored.

Eco-labelling has far-reaching ramifications in society, not just in the commercial relationship between producer and consumer, but in socio-cultural norms and values. It combines economic and social forces via the marketplace. The research of this paper focuses on 1) the socio-cultural aspects of eco-labelling, 2) the economic incentive which drives eco-labelling and 3) the global institutional structures which influence the eco-labelling dimension. Chapter 1 provides an overview of eco-labelling and introduces ecological modernisation, the theoretical foundation of this paper. Chapter 2 is a summary of interviews which were conducted with eco-labelling managers around the world. Chapter 3 analyses the economic impact of eco-labelling, the effects on international trade and the environment, and how eco-labelling affects consumers and producers. Chapter 4 deals with the social context of eco-labelling, and the social paradigms of consumer society and sustainability, merging in the case of ecological modernisation. Chapter 5 looks at opportunities and challenges to eco-labelling, and concrete recommendations with respect to the design of eco-labelling programmes are made.

Eco-labelling is the only tool which functions within the conflicting social forces of consumer society and sustainability. As a market-based instrument for environmental management that functions within the producer - consumer relationship, eco-labelling can be seen as the ecological marketisation of consumer society. Best practices in eco-labelling rely on accepting the fundamental market principles combined with social trends.

Key words: economics of eco-labelling, international trade and eco-labelling, branding and eco-labelling, production - consumption relationship, consumer society, sustainability, ecological modernisation, ecological marketisation

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Wendy Williams
Vienna 2004
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<td>WTO Committee on Trade and Environment</td>
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<td>CSO</td>
<td>Civil Society Organisation</td>
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<td>GEN</td>
<td>Global Eco-labelling Network</td>
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<td>ecolmod</td>
<td>Ecological Modernisation</td>
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<tr>
<td>EM</td>
<td>Ecological Modernisation</td>
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<td>EMAS</td>
<td>Environmental Management and Audit System</td>
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<td>EMS</td>
<td>Environmental Management System</td>
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<td>EPA</td>
<td>Environmental Protection Association</td>
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<td>FSC</td>
<td>Forest Stewardship Council</td>
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<td>GATT</td>
<td>General Agreements on Tariffs and Trade</td>
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<td>IPP</td>
<td>Integrated Product Policy</td>
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<td>ISEAL</td>
<td>International Social and Environmental Accreditation and Labelling</td>
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<td>ISO</td>
<td>International Standards Organisation</td>
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<td>MoE</td>
<td>Ministry of Environment</td>
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<td>MNC</td>
<td>Multi-National Corporation</td>
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<td>MSC</td>
<td>Marine Stewardship Council</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>NPR-PPM</td>
<td>Non-Product Related Production and Process Method</td>
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When one tugs at a single thing in nature, he finds it attached to the rest of the world.

John Muir
OVERVIEW

The heart of eco-labelling is a interdisciplinary matrix of economics, sociology, and international geo-politics. It includes environmentalism, sustainable consumption, international trade and WTO ruling, marketing, civil society, corporate social responsibility and consumer advocacy. The dozens of national and international labelling schemes, and countless regional and local labelling schemes, which identify themselves as “eco-labels” capture a broad expanse of popular environmental and, increasingly, social issues. Eco-labels, those tiny, often obscure symbols attached to products, product packaging and sometimes services (i.e. travel agents) communicate a message from producers and suppliers to consumers. Whether that message is clear and understood, effective, legitimate and worthwhile is the focus of this paper.

There is much that stands behind these multifarious symbols. There is a cause or reason for being, an organisation or institution which co-ordinates, regulates and determines the symbols existence, the language it speaks, the ideas it conveys, the meaning and the application of the symbol. There are criteria for acquiring the symbol, controls over its use, promotion of the symbol and for the cause it represents. There is a social significance, a dynamic which it follows, an impact and multiplier effect, whether intended or not. Eco-labelling plays a surprising and increasingly important role in the consumer marketplace and in society at large. Based on the general principle of care and consideration for the environment in the context of consumption and production, eco-labelling is caught in the web of consumer society, environmentalism, globalisation, sustainable development and social responsibility.

The rise and quick fall of eco-labelling

Despite this somewhat boastful opening declaration, eco-labelling may have in fact already seen its heyday. Following the ‘decade of greed’, various national eco-labelling schemes arose in the late 80’s and early 90’s (Germany having jump-started the whole process in 1978) as environmental awareness and protection became a popular theme in society. Primarily industrialised countries such as the USA, Canada and the EU member states are joined by such newly industrialised states as India, Korea and Thailand, demonstrating the global expanse of this movement. Successes have been equally matched by failures. On the one hand, consumers became aware of and responded to eco-labels on literally thousands of products, thereby creating a niche market for goods and services with an
environmentally friendly selling proposition. Producers modified products or even production processes to meet the certification criteria for eco-labelling. On the other hand, programmes have lacked impact or have experienced declining applications and use. Lack of consumer awareness and understanding, cynicism toward labels and 'label fatigue', price aversion, lost competitiveness and trade issues are just a few of the reasons why producers eschew environmental labels. In the diversity of deficiencies however, the true power and multiplicity of an eco-labelling programme is made evident. Eco-labelling has far-reaching ramifications in society, not just in the commercial relationship between producer and consumer, but in socio-cultural norms and values. There is sufficient evidence which demonstrates that this embryonic movement, however jumbled and rudimentary it may seem, is the tangible beginning of a larger trend toward attaining social and environmental goals in the production and consumption process.

Eco-labelling framework

Government, society, industry and the international community have all noticed that our world, our physical world, is changing. At least some of these changes are recognised as negative, if not downright threatening, and of those, many have been directly correlated to activities of human settlement. In our quest – some might say greed – for economic development, industrial progress, increased standard of living and quality of life, human economic activity – resource extraction, manipulation, production, consumption and disposal - is inadvertently destroying the very basis of planetary life. Rhetorical comment on the topic of environmental degradation abounds. Prescriptions for more efficient use of natural resources, ecological balance, environmentally accountable production processes are matched by policy directives for economic stability, social equity and sustainable development. Within these grand narratives on environmental conservation and sustainability development lies the heart of eco-labelling.

Eco-labelling combines economic and social forces via the marketplace. The two often opposing disciplines of economics and sociology harmonise in the eco-labelling instance, addressing environmental issues through combined market economics and social trends. Consumers can make better and more rational decision-making (correction of market distortions) when provided with better information about the environmental impact of their purchase. Producers have an incentive to pursue environmentally preferred production methods when a market value for this effort and additional cost is established. Production
efficiencies are sought, thereby decreasing the environmental burden of the production-consumption cycle. A market for environmentally preferred products is created. Consumers, particularly the environmentally aware, experience increased utility. New environmental attitudes manifest themselves in behavioural change by both producers and consumers. Multiple stakeholders experience wins and losses; the net result should prove a positive global sum.

This paper aims to shed light on the diverse impacts of eco-labelling and how it fits into existing socio-economic systems. In addition, it emphasises crucial points which need to be considered when designing eco-labelling schemes. Chapter 1 provides an overview of eco-labelling and introduces ecological modernisation, the theoretical foundation of this paper. Chapter 2 is a summary of interviews which were conducted with eco-labelling managers around the world. Chapter 3 analyses the economic impact of eco-labelling, the effects on international trade and the environment, and how eco-labelling affects consumers and producers. Chapter 4 deals with the social context of eco-labelling, and the social paradigms of consumer society and sustainability, merging in the case of ecological modernisation. Chapter 5 looks at opportunities and challenges to eco-labelling, and concrete recommendations with respect to the design of eco-labelling programmes are made.

It will be shown that the eco-label has a wide-reaching socio-economic impact. Eco-labelling is the only tool which functions within the conflicting social forces of consumer society and sustainability. Best practises in eco-labelling rely on accepting the fundamental market principles combined with social trends. Eco-labelling can only work with these forces, not against them.

**Thesis**

The ideas developed in this paper are that 1) eco-labelling is an effective market-based mechanism which can, in combination with other policy measures, help society achieve certain common goals which are related to the environment – production - consumption cycle and that 2) eco-labelling is a social phenomenon, the importance of which is critical to its implementation, acceptance and overall success in society and that 3) eco-labelling schemes must operate within conflicting social forces and according to the principles of both paradigms in order to achieve success. It will be demonstrated that the social and the economic aspects must both be integrated into the design of eco-labelling programmes.
Based on the theory of ecological modernisation, this combined effort leads to a fundamental shift in the production-consumption cycle that will be called ecological marketisation.

**Market-based environmental management**
Eco-labelling is a mechanism by which willingness to pay and other market principles are implemented into the consumption process through the creation of a brand. Labels such as Nestle and Nike generate premiums for the name associated with quality and trust or coolness and lifestyle. Eco-labels, conversely, speak of environmentally efficient production, sustainability and ecological harmony. Through increased willingness to pay for the assurance that environmental issues are considered in the production process and product content, consumers demonstrate commitment to this brand and the environmental burden caused by the production consumption cycle is reduced.

**Social phenomenon**
Eco-labelling is largely a social phenomenon. It is dependent on the goals and values of society, particularly concerning the perceived environmental situation and the relationship society – and consumers – have toward the ecological world. Cultural values and perceptions, particularly toward the environment, and toward the act of consumption itself, are primary determinants of the acceptance, success and effectiveness of an eco-labelling programme. Society consciously accepts or rejects this micro-movement of eco-labelling based on a culture value system. Acceptance leads to increased usage and creates a social momentum, which in turn can establish eco-labelling as a status quo characteristic of modern society. Failure to break through the nebulous barrier between alternative progressive minority movement and the standard and accepted social norm leads to a lost opportunity. It is necessary to acknowledge and integrate cultural considerations into the basic design of an eco-labelling scheme.

**Economic incentive**
Producers require an economic incentive to find environmentally preferable production methods and to create products which are more environmentally benign, while still adhering to principles of the market. Rather than aligning with the polluter pays principle, where the costs of pollution are integrated into higher product prices (usually through taxes), eco-labelling encourages decreased emissions and reduced environmental impact, the extra cost of which is passed on to the consumer in a price premium. Competitiveness based on efficiency and innovation is rewarded. Niche markets for environmentally friendly product
lines are created. The market therefore determines the success or failure of an eco-label, far and above commitment or support of the environmental or social issue being promoted. Eco-labelling requires a solid economic basis, without which it will remain a fringe policy, utilised by a minority of producers, therefore limiting the environmental impact.

The eco-label brand

The precariousness of market trends, well-known to brand managers, is oddly less predictable when the brand is not a whimsical creation of the marketing department but an issue about planet earth or human rights. Eco-labelling, as a brand, faces great competition from capricious labels which may, through elaborate advertising campaigns, better reach the emotion of the wily consumer. With multi-million dollar advertising and marketing budgets, consumer culture is constantly being persuaded in new directions and new consumptive styles. Multi-national corporations create culture in this sense. Through eco-labelling and communicative power, corporations have great influence to steer consumers toward eco-labelled products, to create industry standards and to decrease the environmental burden of the production-consumption cycle of society, providing they have an economic incentive to do so.

Without combined consideration of both social and economic aspects, an eco-labelling programme is bound to have minimal effect, and will be a lost opportunity for consumption – production related environmental management.

Challenges to eco-labelling

Discussions in this paper frequently relate to two themes, both popular in academia as well as in the media. Consumer culture and globalisation are interdependent phenomena around and within which eco-labelling operates. Consumer society is shaping global systems and infrastructure that cater to spiralling consumption cycles. Consumption levels of today deny possibilities for future consumption due to the excess burden created on the natural environment by the production, consumption and disposal of goods. Secondly, international trade relations and the so-called global economy in its current form, leads to its own detriment. It engages short-term thinking, a rape and pillage tendency, without recognition of the finite limits of the global ecology. These factors reinforce one another – global production and trade enables increased consumption possibilities, which in turn creates demand and further promotes the global economy.
**Consumer society**

Consumer society is the larger problem or incentive behind the eco-labelling initiative. Existing social and institutional arrangements have led primarily Western consumers to consume excessively, thereby ravaging a depletting resource base, collectively ignoring an unhealthy eco-system and denying the inequities of an unbalanced - and often oppressive - global economy. Eco-labelling is a response to the existing crisis, an attempt to reduce the use of non-renewable resources, to minimise the impact of production and consumption on the eco-system and, with the increasing use of social labels, to boycott against human rights injustices in the production process. However, it is all based on the actions of the global consumer, a new type of species which consumes not for survival but for pleasure, for social status and for power.

Changes in society – increasing disposable income, change in family structure, increase in single households, access to credit, changing technology, improved media and communication channels – have changed the way people shop. More possibilities exist and therefore offer more opportunity to the consumer to define and express themselves through consumption (Fine 2002). This seemingly happy development has unfortunate consequences. Human activities now have discernible effects on the global climate. The outdated industrial and agricultural revolutions have been usurped by – possibly even trivialised by - the consumer revolution (Glennie 2002). This represents a huge challenge to the eco-label whose message is to reverse the unsustainable trend of consumer culture. Through broad education and corporate engagement supporting this aim, consumers must be re-taught how to consume according to more environmentally friendly tenets.

**Global economy**

The very structure of consumer society is based on skewed ecological and economic systems which are not only unsustainable within Europe but have negative consequences world-wide. Current levels of consumption are based not just on Western-style consumer greed, but also on institutionalised systems which give the consumer a false sense of consumption possibility. Government policy and international trade agreements perpetuate the reckless consumption of exhaustible resources, and international production relations promote random exploitation of nations with loose regulatory conditions. International trade relations continue to operate according to an outdated economic model that is based on the narrow pursuit of trade liberalisation as an end in itself. World Trade Organisation (WTO) decisions and policies rarely take account of the broader goals of social welfare that free
trade is, in fact, supposed to promote. Without a social framework to guide economic activity, trade will increasingly lead the world away from sustainable development. As a result, international trade can lead to further abuse of the environment and natural resources, thereby increasing, rather than alleviating, poverty.

A speedy anti-dote to gluttonous and irresponsible consumption habits and exploitative international economic relations is therefore urgently needed. Eco-labelling acts within these two spheres. Essentially, eco-labelling adds a dose of reality to the production - consumption frenzy by informing the consumer about the consequence of his purchase choice. By engaging producers and creating economic incentives for cleaner production, eco-labelling is one method by which to coax society along the path to sustainability. It is neither a definitive nor sufficient measure however its stretch between overlapping systems make it an interesting point of study and perhaps an indicator of possible future developments.
Research Process

What will be analysed
The study of eco-labelling demands an interdisciplinary approach. Emphasis, in this instance, will be given to the systems within which eco-labelling exists. The social cause and effect of eco-labelling on consumers and producers, the relationship between eco-labelling and other social movements and trends, consumer and producer response, the cultural aspects and differences and the potential to account for these issues in eco-labelling policy design will be discussed.

The analysis will first look at the policy or institution of eco-labelling. There needs to be at least a common agreement on the general definition of eco-labelling. Objectives and stakeholders, uniquely similar across programmes, will be identified. The physical features and certification process will be outlined to aid understanding of how the eco-labelling machine operates.

To deepen understanding of existing eco-labelling programmes and to show how the concept of eco-labelling operates around the world, interviews with programme managers were conducted. Programme characteristics, design and mission statement are compared. The cultural context and structural basis for each programme is discussed, including trends, possibilities and predictions for the future.

With this background information established, a more abstract analysis of eco-labelling and understanding the eco-labelling machine is possible. The chapters which follow discuss the economics of eco-labelling, the impact of eco-labelling in the international trade context and the environmental impact of eco-labelling. The effect of eco-labelling on the primary stakeholders, consumers and producers, is discussed before looking at eco-labelling in the broader social context of consumer culture and sustainability. This offers a natural segue to the discussion on ecological modernisation, the theoretical basis of this paper. Finally, possibilities, limits and best practices for eco-labelling will be identified.

Scope of Research

Scope of study
The topic of eco-labelling is increasingly crowded. Universities, governments, research institutions and NGO’s provide a wealth of commentary on the manifold socio-economic
aspects of eco-labelling. The options and areas for research are literally limitless. For the sake of clarity, the research of this paper focuses on 1) the socio-cultural aspects of eco-labelling, 2) the economic incentive which drives eco-labelling and 3) the global institutional structures which influence the eco-labelling dimension. To maintain focus, issues of life cycle analysis, selection of product and service categories, and certification and licensing criteria, though important aspects of eco-labelling, are not included in the discussion other than perfunctorily.

Eco-labelling, as a global phenomenon, is found Europe, Asia, North and South America, New Zealand and Australia. It was the deliberate intention not to focus on one industry where eco-labelling is prevalent (i.e. food and agriculture) other than the case for examples. The programmes are all Type I life-cycle analysis environmental seal-of-approval positive consumer-oriented labels. The details of this type of label will be outlined shortly. This type of label analysis was chosen for study because of the relative structural similarities between programmes. Most schemes studied are national schemes, many modelled after one another, with the German Blue Angel programme as the benchmark. This provided a good basis for analysing eco-labelling at two different levels. We see how eco-labelling fits into the society through consumers and producers. Increasing the scope of the focus, we see how national eco-labelling programmes fit into the international commercial system of production and trade. Here we should observe similarities.

For the purpose of this paper, eco-labelling should be seen as a social phenomenon. It is a collective act, a representation of an increasingly important issue in society, and it reflects both the complexity of the issue itself, as well as demonstrates the conflict within society that leads to the development – and often success or failure – of an eco-labelling programme. There are both social and institutional factors that influence the acceptance and success of the eco-label.

With the – mostly - good intentions of eco-labelling to inform consumers how to shop better and with a better environmental conscience comes also confusion, scepticism and downright mistrust. All of these negative impressions are fair in the myriad of eco-labelling language, symbols and meaning. Through analysis of existing successful and unsuccessful programmes, a certain pattern becomes evident. Eco-labelling in and of itself is a positive movement, reflecting the deep environmental concern of consumers, and demonstrating their willingness to alter their own shopping behaviour for the sake of ecological harmony. It
shows that producers are also listening to their target markets, responding to their desire for environmentally friendly products, which are produced according to ecological and socially responsible practices. Between all of this seemingly co-operative consumer dialogue however, is a deep mistrust of eco-labels. Any social movement can suffer resistance in the nascent phase. Any market strategy succumbs itself to negative feedback. Through eco-labelling, there is a social market movement, a new type of consumer and producer, with a new conversation. The best practices for eco-labelling, when implemented, will foster the conversation to the advantage of the consumer, the producer and ultimately the environment we are trying to preserve.

Interdisciplinary rigour

Perhaps oddly, eco-labelling merges two divergent and frequently clashing themes in academic literature. On the sociological side, we see markets and therefore consumerism, as being socially constructed, a complex and changing web of sociological and psychological factors which create and define consumption behaviour. On the economic side, we see markets in the form of traditional supply and demand equations, where each is strongly if not directly correlated to price and perhaps utility. Due to the interdisciplinary nature of eco-labelling, it is seldom referred to in classic disciplines or when referred to, then secluded within that discipline (i.e. economics); the sense of the phenomenon itself is lost when studied in isolation. Eco-labelling spins a complex web with economic and political consequences, all of which ought to be considered in an analysis. With this consideration, a balance of research between practical and theoretical approaches, between environmental sociology, environmental economics, consumer society, marketing theory and international trade relations was explored.

How research method affects outcome of work

For many, the environment is an emotional issue. It involves respect for nature, passion for outdoor sports and hobbies, and the essence of our quality of life. The tendency for academics who write about environmentally related issues in any discipline is to lean toward normative prescription of environmentalism and environmental protection. This can mean an unintentional bias in reporting facts and findings or a passion which is heard on paper as a scream against current practices which are unsustainable and damaging to eco-systems.
The researcher wants to find blame – governmental neglect, multinational corporate greed, consumer ignorance! - and take corrective action. It is human nature to want to find practical solutions; it is perhaps a survival instinct.

Research in this area is therefore often skewed. Environmental thinkers are just a stepping stone away from environmental activists; often they are the one and the same. Research is often aimed, if only subconsciously, toward finding fault in existing socio-economic systems and proving methods for alleviation of pollution, saving an indigenous forest, the smiley dolphin or the entire ozone layer. By necessity, researchers in this field must be and therefore act optimistically. Commitment influences the outcome of the research – the goal is not just to observe but to remedy.

**Research restrictions**

Research was limited to English and German language resources and to those where Internet culture is strong. This had both advantageous and disadvantageous consequences on the body of research.

**Advantages**

- Many English and German speaking countries are at the forefront of eco-labelling initiatives, they are leaders of the movement. Their tendency is to supply great volumes of relevant information which is easily accessible to the public.
- It is the Anglo Saxon tradition to exercise the democratic right to argue vehemently for and against any current cause, political and economic policy or socio-economic trend. Therefore a plethora of information and opinions from vastly different geo-political arenas and opposing sides exists.
- Representation came from all stakeholders: government, consumer groups, NGO’s, environmental protectionists, industry. The range of perspectives gave a rounding effect to the understanding of eco-labelling.

**Disadvantages**

- It was difficult to obtain much information from countries who are followers to the movement, those who are limited in resources but keen on commitment. That would have provided valuable cultural insight into the motivation for eco-labelling and determinants of success.
Information about eco-labelling lies in the exclusive domain of those countries which heartily promote eco-labelling; it could not be determined if there are perhaps whole nations who deliberately reject and refute the concept of eco-labelling, perhaps for reasons based on local conditions.

German and English nations are rich and developed. Their arguments for environmental preservation weigh differently against the poor developing world who strive for first world standards of living.

Internet dependence
Due to the contemporary nature of eco-labelling, research material is also quite new. The dusty old classic on eco-labelling has yet to be written. Therefore the information obtained on eco-labelling was primarily through Internet sources of NGO’s, private companies, universities and government. This body of information sometimes lacks theoretical substance. Further, the bulk of the research analyses the existing situation without much historical context or futuristic prediction. The changing scene of eco-labelling is a dynamic process, part of which is diluted in the world wide web.

Theoretical basis

Ecological modernisation
The theoretical basis for this eco-labelling discussion is ecological modernisation. It is a theory which is concerned with ".. the transformation of societies via the integration of environmental concerns into production and consumption practices." (Murphy 2001:1) Ecological modernisation (EM or sometimes ecolmod) is a merger of science and technology, applied with economics and market dynamics. Together these central elements for ecological reform create "... a quest to reconfigure major elements of contemporary society along more sustainable lines ..." (Cohen 2001) or the "... reflexive (institutional) re-organisation of industrial society in its attempt to overcome the ecological crisis." (Mol 1995: 394) It is a sort of shot-gun marriage between diverging environmentalism and capitalist economic structure.

Developed by the German sociologist Joseph Huber in the early 1980's, it was seen as a progressive, if environmentally moderate, alternative to flailing environmental theories at the time. Ecological modernisation was a deepening and internalisation of environmental engagement, particularly in response to the realisation that the government alone was
insufficient in coping with environmental problems. Huber theorised ecological modernisation as "... a new phase of human civilisation, one characterised by a process of so-called super-industrialisation through which the “dirty and ugly industrial caterpillar will transform into an ecological butterfly” (Huber 1985, quoted by Mol 1995). This means using increasingly sophisticated technological developments to mop up the ecological problems created through inferior technologies and environmental negligence in the production process. It is a theory which synergises existing theoretical polarities concerning environmentalism and capitalist industrial society. Opposing neo-Marxism, de-materialisation and de-industrialisation – a dismal thought for developing and developed nations alike – ecological modernisation promotes continued economic development by using production technology to cure ecological deterioration. The power to destroy the environment through reckless production methods is optimistically recalculated as the power to change the environment, purge the sins of production past and re-invent production-consumption relations which are in better harmony with environmental conditions. “Environmental protection, in this new ideology, is no longer seen as burden upon the economy, but rather as a potential source of future growth.” (Weale 1992:75, quoted by Langhelle, 2000: 7)

The core features of ecological modernisation can be grouped into 5 categories (Mol 1995, 1996, 1999):

- Changing role of science and technology in providing solutions to environmental degradation
- Increasing importance of economics and market dynamics, and economic agents who are the ‘social carriers’ of ecological restructuring and reform
- Transformation of the role of the nation-state in environmental reform and the inclusion of non-state actors
- Developing role of social movements in the process of ecological transformation
- Changing practices and the emergence of new ideologies in politics and society

The theory of ecological modernisation has received various acclaim and rebuke over its 20 year history. In seeking to reconcile the critique, the founding fathers and followers of EM theory have fine-tuned the basic elements, emphasising one feature over that of another, and including variables to reflect the current socio-economic dynamic which ecological
modernisation theory hopes to capture. In this context, the third wave of EM, bolstered by the works of Mol, Spaargaren and Buttel, is most relevant. Although not yet well integrated into the core of EM theory, issues of consumption and globalisation, which later will prove to be critical to the applicability of this theory, are worked into the theoretical discourse.

Critique
Admittedly, ecological modernisation is not radical. With a capitalistic priority, it does have an inherently “if you can’t beat them, join them” character to it. Environmentalists are therefore sceptical of this middle-of-the-road-but-veering-right approach to protecting the natural environment.

Reduction of the negative consequences of production and consumption is at the heart of ecological modernisation, but far from being a romantic gesture toward ecological harmonisation with the industrialised world, resource efficiency is pursued in the name of profit maximisation. Preservation of the environment, while an intrinsic goal of ecological modernisation, is merely a necessary element for sustainable production patterns. Altruism is sadly absent.

Recognition of ecological limits
As Malthusian predictions of inadequate linear developing food supplies against exponential population growth were offset by technological advances in the agricultural industry, ecological modernisation purports that environmental problems can likewise be rectified by superior technology. This overtly competitive character of ecological modernisation presents technology as master of the environment, which should be manipulated, dominated and ultimately controlled. Using technology to overpower natural systems, ecological modernisation ignores ecological limits to stability and growth. “The assumption of global ecological interdependence is lacking in ecological modernisation.” (Langhelle 2000:18)

Sustainable development
Ecological modernisation is not to be confused with sustainable development nor does it promote the tenets of sustainability. It does not busy itself with global environmental problems or social justice. Ecological modernisation is an ecology-economy equation and does not include the would be third pillar of sustainability, social equity. Issues of social welfare may creep into ecological modernisation as a by-product of improved environmental
performance, however these effects are fortuitous only, and not part of the deliberate design of ecological modernisation.

**Euro-centrism**
Ecological modernisation has a restrictive bias. It is relevant to wealthy, industrialised societies and promotes the advancement – through eco-efficiency – of rich nations. Further, it is Euro-centric, again confirming its first world, developed world centrism. Its universal application is therefore often disputed.

Further, critics of ecological modernisation often cite that the basic principle of ecological modernisation has nothing to do with environmental protection and everything to do with justifying the current environmental rape and pillage attitude of capitalist industrial society. Ecological modernisation takes a dangerously moderate environmental stance. Balancing ecology with economy so equally means that ecological modernisation is rather unpalatable to true environmentalists and “ ... may serve to legitimise the continuing instrumental domination and destruction of the environment.” (Langhelle 2000:23)

Finally, the credence in the power of ever more sophisticated technology to solve the ecological dilemma lacks passion and respect for biodiversity as an inalienable right in and of itself. Ecological modernisation divorces itself from environmentalism, in this sense, by regarding the environment as simply a source of raw materials to enable capitalist growth. The sanctity of Mother Earth is ignored.

**Eco-labelling and ecological modernisation**
The integration of environmental concerns into the production and consumption cycle is central to ecological modernisation. Through eco-labelling, the environment can “ ... function as something that attaches significance and meaning to the way goods and services are handled.” (Murphy 2001:13) Through communication with the consumer concerning the environmental impact of their purchasing choice, eco-labelling promotes the ecological modernisation tenet of involving economic agents – producers and consumers – into the process of societal change. The enactment of the theory of ecological modernisation is demonstrated in the process of consumptive communication. Consumers understand and identify with the environmental message conveyed with the eco-label, and the enactment of that message, is through consumption of labelled products.
Eco-labelling represents the third generation of ecological modernisation. Working more at the micro-level through consumer action, focus is not on big factories and industrial production but on everyday consumer goods and services. It is commonly understood that an increasing danger to the environment is not only inefficient production processes but the increasing consumption patterns of the middle and upper classes around the world. By incorporating environmental issues into the production-consumption cycle, eco-labelling addresses the global consumer directly. The experience of the consumer as engaging in environmental protectionism through the choice of eco-labelled products brings environmental issues to the forefront of daily decision-making. As Cohen points out, “... developments consistent with the “mainstreaming” of the environmental movement are indicative of ecological modernisation.” (Cohen 2001)

**Why ecological modernisation is appropriate for this work**

Despite the impressive list of critiques, ecological modernisation theory signifies a significant paradigm breakthrough in respect to the environment and society. First and foremost, ecological modernisation put ecology into the production equation. Marx's land-labour-capital inputs of production take on a fourth element, the ecology. A functional differentiation approach of industry, market, society and government now includes ecology. Compared to alternative notions of de-industrialisation and anti-capitalism, ecological modernisation represents the only theory which is not materially regressive. In recognition of the importance of consumption in society, and how intrinsic consumption has become in the meaning of culture, ecological modernisation integrates existing social elements rather than creating new possibilities.

Disappointingly moderate to pure environmentalists, ecological modernisation has in fact succeeded in mainstreaming the environment as a production consideration, thereby increasing not only recognition but also value. This is a step forward, however quantum, from the industrial revolution era attitude that Mother Earth is a supplier of natural resources. A holistic approach to production and consumption relations replaces the long-standing Cartesian thinking that industry, commerce and consumption are unrelated to the natural world.

Ecological modernisation considers the realities of current (consumer) society and creates the least offensive alternative to existing paradigms. That is does not satisfy purist environmental ideals is clear. Global industrial organisation still holds many allures, even if it is acknowledged that sustainability is a scientific law, and not a final left-wing conspiracy to
overthrow capitalism. Society, unbridled through exponential advances in science and technology, is learning to deal with finite limits. Ecological modernisation is the social theory which will bide us through this ambiguous time.
chapter i  eco-labelling: design & context

what is eco-labelling?

Eco-labelling, being a relatively new phenomenon on the economic scene, does not have a dusty old encyclopaedia which states the definition and outlines its basic components. Neither does it have a discipline such as economics or sociology which claims it to be its own. To the contrary, eco-labelling is an interdisciplinary, international occurrence with a hodgepodge of analysis, admirers and proponents, critics and detractors. Hence, any attempt to define the subject invites judgement from all sides, from both practitioners and academics. Being both an social, economic as well as an environmental phenomenon, eco-labelling is not a subject without emotion. Definitions in contemporary eco-labelling literature include the gamut from “non-tariff barrier” to “hope for a common future”, so divided can be the interpretation of eco-labelling.

If there is a bible on eco-labelling, then it is the Global Ecolabelling Network’s “A Guide to Ecolabelling Around the World”. It provides the most comprehensive technical information on eco-labelling schemes. Their practical definition of eco-labelling is “... a label which identifies overall environmental preference of a product or service within a particular product/service category based on life cycle considerations.” (GEN Ecolabelling Guide 1999:1) Grote also identifies eco-labelling as “... a practice of providing information to consumers about a product which is characterised by improved environmental performance compared with similar products.” (Grote 2002)

In contrast, when Jorge Guerra gave a speech to the Public Symposium at the WTO (a notorious challenger to eco-labelling) “Challenges Ahead on the Road to Cancun” in June 2003, he gave eco-labelling a broader – and more romantic – interpretation intimating that eco-labelling is “... about rationality in resource use and consumption, about being true to our claims. It is a practice respectful of your fellow citizens in distant lands, and future times.” (Guerra 2003)

Mary Douglas (Douglas & Isherwood 1979), noted sociologist who wrote ground-breaking work on the meaning of consumption would refer to eco-labels as “social markers”, which define something about the products we choose and how the eco-label influences the buying decision. Barham (1997), writing on eco-labelling in the food industry, furthered this definition by stating that eco-labels “... carry explicit messages about socially defined values that go well beyond the actual contents of a product to encompass the way in which the product
inserts itself into the overall environment, as well as into the social configurations (cultures, nations, communities) living within it." The USA EPA report mentions that "All environmental labelling programmes aim to improve some aspect of environmental quality in their respective countries by reducing pollution." (USA EPA 1998:35)

For the purpose of this paper, we can use the general understanding that an eco-label is an additional label on product or services which indicates the nature of the relation of the product or production process to the surrounding environment, including persons.

**Evolution of product labelling**

Product labelling is not new, however the type of information made available to consumers is broadening and intensifying. Through a combination of mandatory and voluntary provision of product related information, consumers are now given a vast array of communications concerning not just country of origin or hazards of use, but also the environmental significance of the product.

Further, eco-labelling is experiencing second generation growth as social issues such as fair trade and human rights are being incorporated into product labels. This progression of information is evolutionary. Product content, country of origin and danger/health warnings do indicate to some degree the environmental and social impact of a product and production process, although determining the extent of the impact would require that the consumer be exceptionally well-versed in regional biodiversity, geo-politics and international trade relations. Eco-labelling eases the path to better information and provides more specific information exclusive of geography.

Graphic 1, below, demonstrates how the evolution of product labelling is shifting from isolated product-related information to more holistic information about the entire production-consumption arrangement, and its impact on both the physical and the social environment.
The top level of the pyramid remains open to signify the potential future development of socially responsible eco-labelling.

**Objectives**

“The fundamental rationale for eco-labelling is ... to generate political support for improved environmental management and to raise environmental standards through consumer choice.” (Deere 1999) Effectively, eco-labelling can institutionalise environmental stewardship in production and consumption of goods and services. Eco-labelling provides an economic basis which includes not the cost of pollution, as would an environmental tax, but perhaps more effectively, the cost of minimising the pollutants created.

The specific goals of an eco-labelling programme are many and will be further discussed in Chapter Two. Eco-labelling incorporates a broad spectrum of environmental and social woes. To understand the breadth of eco-labelling, the table below distinguishes between three types of labelling policies which concern the ecological environment, the human environment and the process environment. Effectively, these three types of environmental parameters set the basis for sustainability. Eco-labelling is a response to most, but not all, of the causes listed in Table 1.

**Table 1  Labelling Objectives**

<table>
<thead>
<tr>
<th>Ecological Environment</th>
<th>Human Environment</th>
<th>Process Environment</th>
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<tbody>
<tr>
<td>Soil pollution</td>
<td>Safety controls</td>
<td>Packaging</td>
</tr>
<tr>
<td>Water contamination</td>
<td>Labour rights</td>
<td>Noise</td>
</tr>
<tr>
<td>Energy consumption</td>
<td>Human rights</td>
<td>Re-cycling/re-use</td>
</tr>
<tr>
<td>Natural resource use</td>
<td>Third world development</td>
<td>Pollution emissions</td>
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<tr>
<td>Use of hazardous &amp; toxic</td>
<td>Health &amp; security</td>
<td>Animal rights</td>
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<tr>
<td>materials</td>
<td>Alcohol &amp; tobacco*</td>
<td>Gene technology</td>
</tr>
<tr>
<td>Biodegradability</td>
<td>Lotteries*</td>
<td>Compliance with legislation</td>
</tr>
<tr>
<td>Biodiversity</td>
<td></td>
<td>Co-operative projects*</td>
</tr>
</tbody>
</table>

* not related to eco-labelling

**Stakeholders**

Stakeholder involvement in the environmental labelling process can occur at three stages: programme formation, product category selection and criteria development (USA EPA 1998: 38). The question is not so much who is a stakeholder in eco-labelling but really who is not. Producers and consumers, given the nature of their role in the economic process, are obviously affected by eco-labelling programmes. Further, and no less concerned with the
eco/labelling machine, are industry organisations, environmental activists, policy-makers, international trade organisations, consumer groups, NGO's and government, even marketing managers. Because eco/labelling is a consumer oriented policy intended to affect consumption patterns, and that consumption is a global phenomenon regardless of country, geography or culture, any issue related to consumption therefore has at least the potential to have a profound effect on a vast number of stakeholders. Eco/labelling, whether seen as desirable or not, has such impact.

**Technical features**

The technical features of an eco/labelling system vary according to design, motivation, country and stakeholder participation. The categorisation of eco-labels is tending toward the ISO 14000 Environmental Management attempt to regulate contemporary programmes. In general, it is accepted in current literature that there are three types eco-labels which are based on the ISO14020 guideline “Using Environmental Declaration and Claims”. Table 2, below, provides the basic outline for each of the three types of eco/labelling programmes:

<table>
<thead>
<tr>
<th>Eco-label</th>
<th>Self Declaration Claim</th>
<th>Environmental Product Declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type I</strong>&lt;br&gt;ISO 14024: 1999</td>
<td><strong>Type II</strong>&lt;br&gt;ISO 14021: 1999</td>
<td><strong>Type III</strong>&lt;br&gt;ISO/TR 14025: 2000</td>
</tr>
<tr>
<td>Third party, often quasi-government, and second party initiative of industry association on behalf of members</td>
<td>First party company initiative</td>
<td>Third party organisation independent of producers, distributors &amp; retailers</td>
</tr>
<tr>
<td>Seal of approval Product specific LCA* based</td>
<td>Product or company specific</td>
<td>Single attribute Product and production process specific LCA based</td>
</tr>
<tr>
<td>Internal or 3rd party industry-specific certification based on multiple criteria</td>
<td>Single criteria environmental claims &amp; attributes of product or company performance</td>
<td>Quantified product information based on pre-set categories of parameters set by 3rd party Impartial verification body</td>
</tr>
<tr>
<td>Voluntary industry standard</td>
<td>Voluntary (marketing tool)</td>
<td>Voluntary or mandatory</td>
</tr>
</tbody>
</table>

* LCA – Life Cycle Analysis

There are regional and international initiatives from both the private and public sector. Positive labelling programmes typically certify that labelled products possess one or more

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environmentally preferable attributes. Negative labelling warns consumers about the harmful or hazardous ingredients contained in the labelled products. Neutral labelling programmes simply summarise environmental information about products that can be interpreted by consumers as part of their purchasing decision (USA EPA 1998).

Type I labels are considered positive labelling because they identify positive environmental aspects of the product. The license or logo is awarded for products which are comparatively less harmful than competitive counterparts. Programmes are usually designed so that labelled products represent between 10 and 30% of market share in the given product category. This study looks at positive labels which are retail oriented (including professional procurement), the type of labelling that helps consumers vote their preferences in the marketplace.

**Application and procedure**

In the 1997 OECD study “Eco-labelling: Actual Effects of Selected Programmes”, a simplified chart was drawn to characterise the general procedure for the development of eco-labels. With minor adaptations, the process is replicated in Graphic 2 below.

**Graphic 2**

![Eco-label Development Procedure](image-url)
Approximately every three years, the process is repeated and adapted according to changing technological feasibility and requirements.

**Technical and social aspects**

The function and consequence of eco-labelling can be divided into technical and social aspects. This discussion will focus on the right side of the Table 3, that is the social aspects of eco-labelling and the systems within which it operates. The technical aspects of eco-labelling require scientific expertise which is not within the context of this paper nor the competence of the author. This distinction is valuable to promote understanding the complexity of the concept of eco-labelling.

<table>
<thead>
<tr>
<th>Technical Aspects</th>
<th>Social Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Environmental impact</td>
<td>• Consumer society</td>
</tr>
<tr>
<td>• Protection of regional biodiversity</td>
<td>• Sustainable development</td>
</tr>
<tr>
<td>• Life cycle analysis</td>
<td>• Environmental goals</td>
</tr>
<tr>
<td>• PPMs and NPR-PPMs*</td>
<td>• International trade</td>
</tr>
<tr>
<td>• Technical standard setting, verification, compliance</td>
<td>• International commitments</td>
</tr>
</tbody>
</table>

*PPMs – Production & Process Methods; NPR-PPMs – Non-Product Related PPMs

There is no one way to organise an eco-labelling programme. Each scheme is designed according to local political conditions and ambitions, existing environmental programmes, personalities, environmental conditions, local culture and its own peculiarities. Within an eco-labelling programme, there are typically two groups of actors. The technical side develop voluntary standards and the operational and marketing group develop consumer awareness and encourage producers to take up the license. Each group has a different idea of the mission of eco-labelling. Typically resources are divided between criteria development 40%, licensing 40% and marketing and administration 20%.

**Observations on eco-labelling**

Eco-labelling is meant to be a pro-active preventative market mechanism. It is a method by which some degree of consumption-related environmental *preservation* can be achieved, at least theoretically. It is a consumer-oriented initiative which requires consumer awareness and participation, but also involves producer participation. In this sense, it differs from the environmental taxes which affect the producer directly, and the consumer indirectly through
price increases. With eco-labelling, the consumer has a more active role. Their daily support of eco-labelled products reinforces the programme.

**Bite-sized activism**
Issues of environmental degradation are often overwhelming in scale. It is the rare consumer who can grapple with the concept of global warming, disappearing rainforests or species extinction, particularly in the context of the retail environment. These problems do not integrate into daily consumption decisions and habits. What eco-labelling does is to downsize environmental problems into bite-sized form. Labelling on products indicates the nature of the ecological or social problem related to the product, while simultaneously assuring the consumer that this issue is not being aggravated by the consumption of this particular brand. The deliberate selection of eco-labelled products in daily purchasing decisions turns the consumer into an environmental activist, whether consciously or not.

**Self-fulfilling prophecy**
Further to reducing environmental problems to a manageable scale, eco-labelling acts as a self-fulfilling prophecy for consumer related environmental management. Eco-labelling is a complementary policy initiative which can be integrated into larger social goals such as sustainable development. Increased use of eco-labels leads to increased awareness by consumers, which leads to increased activism which further supports the demand for eco-labelled products. Through this cycle of awareness and demand, vital environmental and social issues can be addressed in the public arena of consumption.

**Socio-economic context**
Ironically, despite twenty-five years of existence, eco-labelling is still in its nascent phase. The 1997 OECD study on eco-labels reported that most eco-labelling schemes are "... relatively recent and/or are still evolving. Their structure and procedures are being modified on a trial and error basis." (OECD/GD(97)105:10) Six years later and one can say that the number of eco-labelling programmes has increased, however social acceptance and economic understanding are not as well developed as desired. A paucity of research exists in analysing the social sphere of eco-labelling and how it relates to existing social forces such as consumer culture, the unfettered conviction of neo-liberal economics, environmentalism, sustainability and the concept of global village. Consumers are being educated about and encouraged to shop “green” on the one hand, and are demonstrating their commitment to the environment by making their purchasing choices
based on eco-labels, often with an increased willingness to pay\textsuperscript{2}. Producers equally participate in the process by changing production systems and integrating ecological factors into the bottom line calculation of their business model. On the other hand, consumers live in a consumption oriented society. They are encouraged, almost brainwashed, with messaging that promotes consumption. Producers are rewarded for profits and increasing shareholder value, and operate in a neo-liberal economy that singularly pursues economic growth and international trade. The environment has not been a primary concern of modern commercial relations. Squeezed between these conflicting socio-economic realities, eco-labelling attempts to work within both systems by satisfying the divergent objectives of each, while encouraging harmonious environmental relations.

The main theory which will be developed throughout the research is that eco-labelling is perched between two social movements and therefore can create change in society on multiple levels. In the broadest scope, international institutions are creating a legal framework which supports environmental protection as a reaction to increased awareness of and reaction to both the practical and moral necessity to change existing production and consumption patterns. At the policy level, sustainability has become a quiet but definite aim of NGOs and civil society lobbying for a cleaner environment, more industry responsibility and better legal framework to support this aim. Producers are responding to these pressures by voluntarily engaging in social and environmental responsibility. Finally, there exists the consumer reaction to environmentalism as enacted through choice of eco-labelled products. From this we see that eco-labelling has far reaching social, economic and institutional consequences that are becoming increasingly recognised throughout social and political strata.

**Importance of study**

**Social synergy**
Dependence on a degrading eco-system is a frightening thought. Other than the odd sensationalist news broadcast, most of us manage to avoid confrontation with this gloomy idea. Fortunately, there is a growing movement of global citizens concerned with and engaged in more than avoiding the problem. Scientists, environmentalists, consumer groups, a very few politicians, students, economists and the odd sensationalist news broadcaster have banded together in various forms and are working on policy solutions. Eco-labelling

\textsuperscript{2} Research both supports and negates this statement. It is safer to say that some consumers are
was born of these divergent activists vying to voice their concern about environmental threats.

Eco-labelling both reflects and creates social dynamic. On the one hand, there are various movements that are gaining momentum: environmentalism, sustainability, consumer advocacy, fair trade to name but a few. Each of these factions have initiated or created an eco-label as part of the greater goal of protecting the environment (i.e. rainforest free timber), achieving sustainability (i.e. Marine Stewardship Council), protecting consumers’ right to know (i.e. Eco Flower) and improving human rights for workers (i.e. TransFair). The eco-label symbol on consumer products and services is the seed for further action, support and growth through increased consumer awareness, not just of the label itself, but of the issue behind it. Theoretically at least, the effect is cyclical. More eco-labelling leads to increased social awareness, which leads to more engagement in eco-labelling.

Eco-labelling, in the broader socio-economic context, is surely not the ultimate environmental solution. As still waters run deep however, eco-labelling could be an indicator of this overwhelmingly significant change in society due to the connection between consumer society and sustainability. In and of itself, it is less important as what it signifies and what it can achieve as part of a broader contextual environmental alignment with sustainability.

**International unity**

More than 10 years ago, the “... potential usefulness of eco-labelling schemes to create market-based incentives for environmentally friendly products and production processes” was internationally recognised at the UNCED (United Nations Conference on Environment & Development, Agenda 21, Brazil 1992). The World Trade Organisation Commission on Trade and Environment (CTE) also recognises that “... well designed programmes for eco-labelling can be effective environmental policy instruments, which may be used to foster environmental awareness amongst consumers.” (www.wto.org) The International Organisation for Standardisation (ISO) developed general principles and guidelines for environmental labels and declarations, thereby tacitly acknowledging the potential value of a well designed eco-label programme. The EU established its own scheme – the EU Flower - for the internal market, again validating the broad acceptance of the eco-label as an effective policy tool. And further, in an effort to assist in the development of national eco-labelling programmes, and to promote harmonisation of international standards and mutual recognition, the Global Eco-labelling Network (GEN) was established in 1996. The two dozen

willing to pay more for environmentally friendly products.
members represent national and regional eco-labelling schemes that view eco-labelling as an effective tool to influence consumer related environmental issues. “In principle, eco-labelling has been endorsed by the international community as one of the tools that can help improve environmental management through market-based means.” (Deere 1999) It is clear that at least the theoretical concept of eco-labelling enjoys interest and support from the international community. Therefore it is important to harness the potential synergy to create programmes which attain optimal results.

Political economy
Tiny as the eco-label symbol may be, it has aroused a great deal of controversy at the international level. “While legitimate reasons for encouraging eco-labelling as a means of improving the environment exist, there are also legitimate concerns regarding the fairness of these schemes ...” (Grote 2002) The debate can be split into two camps. There are the neo-liberal, free trade, globalisation proponents, guarding against eco-labelling with GATT/WTO directives on unrestricted, barrier-free and unbiased international trade. On the other side, we have those who, in some form or other, fit under the umbrella of sustainability. They are consumers and producers who may not be against free trade and globalisation per se, however they reject the existing status quo of consumer society in the current international economic order. „A central consequence of globalisation ... is the creation of a post-modern world of growing interdependence: a global division of labour, a world-wide diffusion of consumption practices, and the spread of risks associated with production and consumption practices to every corner of the globe.” (Rosa 2000:87) For them, eco-labelling is one tool, a weapon of sorts for David to successfully defeat Goliath by achieving a more level playing field. Consequently, the economic and political implications of eco-labelling are significant.

Supply and demand
The popularity of environmentally friendly and ecologically preferable products is an enduring trend. Whether motivated by altruism and concern for the environment or simply health consciousness, consumers demand products, particularly in food markets, which are organic, biologic, pesticide-free, recycled, chlorine-free, chemically untreated, etc. “The market for eco-labelled organic products in several European and North American countries ... is said to be expanding more rapidly than supplies and average prices are significantly higher that for non-organic products.” (Deere/FAO 1999) “Trade with organic products realises growth rates of five to 40% which are rarely found in food markets.” (Grote 2002)
Further, it is shown that households which are health and diet conscious are, in general, also more environmentally conscious (Piorkowsky 2001:58). There is a positive correlation between observed interests. A greater supply of environmentally preferable products, particularly in the food market, enables the consumer to make purchases which are consistent with their consumption ethic.

**Global consumer**

Liberalised international trade and advanced technology and logistics systems, combined with a new world manufacturing order and the internationalisation of the division of labour, have enabled the free flow of goods accompanied by "... the availability everywhere of a wide assortment of consumer goods; the market baskets of people widely distanced around the globe are becoming increasingly similar" (Rosa 2000:76). Hence global consumers are being presented with ever more similar options. As global consumption habits increasingly homogenise, the collective power of consumers to influence production methods increases. Through consistent demand of eco-labelled products and services, consumers can re-determine global production arrangements that are environmentally preferable.
Environmental imperative

“The total impact of our activity on this small planet is enormous and unsustainable at our current rate of consumption and related resource depletion. ... As a consequence, the rate and range of global environmental deterioration is unprecedented. ... Parasitic-like and swarming, we are destroying our environment. With astonishing speed, we are attacking our ecosystems like businesses in liquidation. In a few short centuries, we have upset an extraordinary array of life that took billions of years and endless experiments to produce. ”

Simonetta 2001

Need more be said? The finite system within which we live is over-burdened and it has become a requisite for survival that the economic activities and production and consumption cycle be drastically altered and down-scaled. Eco-labelling becomes interesting in this respect because it provides an economic incentive for long-term environmental stewardship. “Eco-labelling is about the exercise of rights on biological resource use and biodiversity conservation, about sustainable development, intellectual property, intangible collective assets and global commons.” (Guerra 2003) Environmental protection and sustainable development by necessity will become the new social and business ethos over the coming decade. Eco-labelling can contribute to this process.

Corporate accountability

International conglomerates have become the most powerful institutions of our time. Of the top 100 economies, 51 are multinational corporations (Klein 2001:339). In “No Logo”, Klein writes a scathing report about the consequences of international production relations, the global division of labour, the threat to democratic principles and the lack of accountability these economic giants attain through their diversified organisation. “Centuries of democratic reform that had won greater transparency in government suddenly appeared ineffective in the new climate of multinational power.” (Klein 2001:341) Through spurious cross-border mergers and random outsourcing, economically convenient production relations and cult-like brand management, the mega-corporation has gained enormous profits and power. By bouncing from one transient production facility in one developing nation to the next, multinationals put downward pressure on national standards amongst competing nations. Further, due to the complexity of the international production web, it is difficult to determine the conditions of production and the line of accountability. The odd sweatshop scandal of a celebrity brand has given impetus to the requirement for more accountability in production.
relations of large companies, disregarding the ownership relations. Through the eco-labelling verification process, firms subject their production methods, or their production arrangements, to a third party, without hiding behind the cloak of patent, copyright and trademark law. It is one solution whereby the consumer can determine under which environmental and human rights conditions the products for purchase are produced.

**Knowledge is power**

Today’s consumer reckons with a multi-billion dollar marketing and advertising industry. Daily they are bombarded with hundreds of messages, images and temptations which inspire consumption. Consumers’ willingness to pay is influenced by fantastical creations of the marketing department. Real or perceived qualities and values of the product as well as the image created by the marketing strategy influence the final price. (Guerra 2003) However the consumer is not getting the full story. It is therefore also relevant that the consumer learns not just the intangible product quality, such as coolness and sex appeal, but that they also understand the relationship of the product or the production process to the local environment. As a consumer demands information on product content or hazardous consequences of products after purchase, they should also have the right to know of the negative consequences outside of the home prior to purchase and following disposal. Eco-labelling provides fair information to consumers that explains the larger context of the product in the holistic sense.

In consideration of the nine issues discussed above, it becomes clear that eco-labelling has tremendous potential as a consumer information tool and as a mechanism to achieve common societal goals. “The view is that labelling is part of a wider market mechanism that can promote diversity, traditional livelihoods and the sustainable use of resources.” (Guerra 2003) It is therefore important to understand the intricacies of the eco-labelling machine. Knowing how it functions enables knowing how best to use it.

**Analysis of existing eco-labelling programmes**

The purpose of this study is to look at the perhaps less observed socio-economic dynamic of eco-labelling. This paper should not be considered a technical analysis of eco-labelling specifications. The following section is a summary of analysis of 15 national environmental programmes based on interviews with the programme managers. The goal of the interviews
was to reach an understanding of the variables that integrate in the case of eco-labelling rather than to concentrate on a few isolated indicators. These interviews show the strengths and weaknesses of existing schemes and the impact on society, the cultural relevance, the differences and commonalties between various national programmes and what the eco-labelling scheme means in the larger context of current social and environmental movements.

Chapter II  Programme Analysis

Overview

Considering the multi-disciplinary nature of eco-labelling, there are many ways to analyse the eco-labelling programmes. For the purpose of this study, issues of socio-economic and cultural relevance were considered. As mentioned in Chapter One, the ‘technical side’ of eco-labelling, standard setting, monitoring, and compliance are not the focus of this paper.

The following section is a summary of 16 interviews with eco-labelling programme managers which were conducted between October and November 2003. The interviewees represent a cross-section of biologists, chemists, marketing and business managers, civil servants, even a journalist. Many of the persons interviewed for this section have been working in eco-labelling for as long as it has existed in their country. For some it has been a defining goal of their life work while for others it has represented a new career opportunity.

The purpose of the interviews is to establish the social context and framework of the eco-labelling programmes in general. By studying nations with widely differing circumstances, we can isolate the fundamental forces underlying eco-labelling success and weed out idiosyncratic phenomena. Country and cultural variations abound. Through these interviews, it was possible to establish commonalities between programmes, the range and variation of traits and characteristics, the differences amongst the programmes, where there has been success and where improvement can and should be made. The interviews show what eco-labelling is intended to achieve and what it means to the people running the programmes, how eco-labelling fits with local cultures, contemporary society, business trends and socio-economic systems.

The nations chosen for study are ones that have successful eco-labelling programmes and show signs of improving ability. Nations vary in size, government policy toward the environment, social philosophy, geography and region, and stage of economic development. The study was limited to fifteen countries solely because of time and resource constraints. Together, these eco-labelling programmes represent 50% of all national eco-labelling schemes. All are GEN members, with the exception of Austria.

Most studies to date have compared the technical features of eco-labelling and usually focus on the better known German Blue Angel, the Scandinavian Nordic Swan, the EU Flower and the US EPA Energy Star. Newer and smaller programmes have not received much attention.
Through the interviews, many important variables that shape eco-labelling, as well as the most significant ways they work together as a system, are identified.

**The interviews**

**Programme Specific**

1. What is the philosophical basis or mission statement of the eco-labelling programme?

The answer to this question could readily be found on any of the eco-labelling programme web sites or brochures. However, the goal of this question was to find out how the individual eco-labelling managers are steering their programmes. All programme managers mentioned influencing either consumers or producers, however there was a considerable bandwidth around these two variables. Perhaps the most salient statement of the eco-labelling managers is that many believed their goal proposition to be identical with their international counterparts. Programmes tend to be either producer or consumer focussed, with surprisingly little mention of environmental ambitions.

Eco-labelling is seen by many as an information tool for consumers. There were five variations to this answer. Eco-labelling is seen as a consumer tool that:

- **informs consumers** about product content and production processes to better understand environmentally relevant purchasing choices
- **encourages demand** for environmentally friendly products
- **gives consumers choice** and orientation in a broad array of products
- **empowers consumers** in influencing producer behaviour
- **encourages responsibility** in consumer behaviour (aims at sustainable consumption)

Alternately for producers, eco-labelling is a tool which:

- **provides economic incentive** for environmental preferable production processes
- **rewards environmentally friendly behaviour** through positive image and public relations
• can be used as a **marketing tool** for product specific promotion
• **encourages producer responsibility** for a cleaner environment

Not all eco-labelling managers would agree with all of the subtleties listed above. What is interesting is that one type of programme can be flexible enough to be used as a policy tool for each of the above-mentioned purposes.

2. In which way has eco-labelling been successful?

One problem faced by eco-labelling programmes has been establishing criteria for success. Is it the reduction of environmental impact in the production process? The consumption cycle? Is it the number of licenses issued by the eco-labelling board (something that can point to at least financial success of a programme)? Alternately, is it the level of consumer awareness, demand and demonstrated market share dominance?

Question 2 gave the eco-labelling managers the opportunity to assess their own success. There are as many definitions to success as their are eco-labelling programmes. Where the answers to question one centred around consumers and producers, the answers to question two fit into three categories which are producer related, programme related or environment related.

The eco-labelling managers frequently pointed to the take-up of licensees, which for many has been substantial. Further, the number of licensed products and product groups is extensive, and continually increasing, indicating an on-going interest from producers. The Scandinavian countries could of course point to the high awareness of the Nordic Swan amongst consumers and the strong consumer confidence in particular. The Swan is a trusted institution within Sweden, Norway and Denmark.

Many eco-labelling managers mentioned the importance of an independent third party certification process combined with state support as an indicator of success. The cooperation and continued interest of the various stakeholders is considered a foundation for eco-labelling functionality and success.

Public and professional procurement has become a frequent and recurring theme in the eco-labelling world. It allows eco-labelling organisations to focus on a smaller organised consumer group, that is professional buyers at the institutional level. Eco-labelling
organisations, such as the Canadian Environmental Choice, focus their limited promotional budget on a few big buyers. Public procurement therefore represents success of eco-labelling in credibility and acceptance at the political institutional level.

Another lauded success of eco-labelling has been the creation of standards which are used even in the absence of an awarded eco-label. Public procurement officers use the eco-labelling standards to determine acceptable environmental indicators, while producers use the standards in eco-design. Again, this indicates a success for eco-labelling in that the environmental product criteria has reached a status quo for producers and designers, thereby leading to de facto industry standards..

Another success for eco-labelling is that it introduces new types of products – environmentally preferable products – to the market, thereby increasing consumer choice and fostering competition. It demonstrates that so-called “green production” is market viable and can lead to improved production efficiencies. Eco-labelling has further flattened significant differences in the environmental impact between products within the same product group. It has empowered consumers and given them a voice on the market. Certain professions (i.e. painters) may be interested in product content for health and safety reasons. Through the environmental message, eco-labelling helps these professionals to identify safe products.

Eco-labelling was also considered successful as a voluntary way to ban the use of substances which are thought to be dangerous but have not yet been scientifically proven to be harmful. Eco-labelling provides environmentally preferable alternatives within the established market system.

A final point on the success of eco-labelling came from the Global Eco-labelling Network (GEN) secretariat, who has observed the increased recognition of eco-labelling at the international level, particularly among large international organisations which are affected by or concerned with environment and trade regulations. The WTO, OECD and ISO are all organisations where the kaleidoscope of economic development, environmental protection, standard setting, labelling and international free trade merge or clash. GEN gave the individual national eco-labelling programmes a united voice.

In summary, the successes are:

- Producer take-up of licenses
- Increasing product and product groups
- High consumer awareness and recognition
- Independent third party certification (credibility)
• de facto industry standards
• Fostered competition
• Increased product variety
• Voluntary bans
• Facilitated health and safety measures
• International recognition
• United voice of national eco-labelling programmes

In which way has eco-labelling been unsuccessful?

The answers to this question also took a very specific form in that they are related to a weakness or limitation – rather than a failure - of the eco-labelling programme, or they are related to external, usually macro-economic, factors.

Eco-labelling was said to be unsuccessful in the sense that it is market-based and therefore cannot be too inherently idealist. There must always be a balance between criteria setting and popularity of these issues in the public domain. If society does not have an awareness – and possibly fear – concerning the environmental issue, labelling does not help in phasing out the use of the substance. Another example of how eco-labelling has been unsuccessful is in its very principle that firms who are seeking out environmentally preferable production processes should, according to the polluter pays principle practised by so many governments, be paying less, not more. Eco-labelling adds an extra cost to producers who incur administrative costs, license fees and undergo monitoring and audits.

Another limitation of eco-labelling identified is that it is technical feasibility based. Eco-labels will be developed based on known systems and processes which are measurable. It is also difficult to establish meaningful criteria where the difference between products is low.

The product group selection of eco-labelling programmes is often within a narrow consumer bandwidth. In the case of Japan, less than half of the 5,600 labelled products are consumer goods. Building materials and industrial products have little relevance in the average consumer basket. This leads to awareness and interest problems, on the one hand, but opens a wide gate for professional procurement on the other.

Limited budgets also restrict the level of promotion and awareness raising that can be done for eco-labelling. This cyclical lack of funding and lack of awareness is sometimes further neglected as in New Zealand, where take-up of the eco-label is low. Further, license owners
are not properly ‘exploiting’ the market benefits of the eco-label. It is common in many countries that the licensees expect the eco-labelling organisation to engage in promotions. In Germany, the spiritual home of the eco-label, and where awareness levels over the twenty-five year history of the programme have been high, concern for environmental issues is decreasing as consumers fret about health issues, unemployment, economic woes and global terrorism. Each of the above-mentioned issues dampens or hinders the effectiveness of eco-labelling.

3. How close is the eco-label to reaching its full potential?

Similar to measuring success, assessing the potential of eco-labelling is open to many interpretations. Despite the possibilities, the unanimous answer to question three is that eco-labelling is nowhere near its full potential. Many eco-labelling managers mentioned that lack of government support, both political and economic, is one of the key barriers to reaching goals. Lack of awareness is also a debilitating weakness of eco-labelling and can only be solved through concentrated media efforts, awareness building and education campaigns. Access to media requires either significant resources or significant interest by the public. Eco-labelling currently has neither, and hence remains side-lined as a marginal issue in the press.

Many eco-labelling managers also questioned the real potential of eco-labelling. In the most basic sense, the success of eco-labelling depends on high environmental awareness and interest amongst the general public. In the case of Thailand, it was noted that environmental issues cannot be a priority if they are not properly understood and are not an immediate threat to survival. Again this relates to sufficient funding, public education and promotion of eco-labelling.

Another issue relating to the potential of eco-labelling is the selection of product groups for eco-labelling. The environmental issue behind the label has to be understood by consumers. Spain recognises a need for licensing in more services, particularly tourist related. The product groups chosen for eco-labelling are at least in part determined by technical feasibility, and therefore limited in scope. Eco-labelled products represent a tiny fraction of national economic activity, which inherently limits its potential in any case.

Eco-labelling is an incremental long-term initiative that does not work in isolation. To reach optimal potential, co-ordination with other environmental and market policies is required.
Theoretically, eco-labelling can be said to reach full potential only when all environmental problems are solved. A more realistic sign of reaching optimality is when the marginal benefit of the revision of criteria becomes so small that the benefit of new criteria is negligible. In general, eco-labelling schemes lack a comprehensive benchmark against which its potential can be measured.

4. How was awareness for the eco-label created (marketing campaign, public education programme, press ...)?

Although question four should be very specific to each eco-labelling programme, the answers were characteristically similar. Due to inadequate budgets, any real promotions have been limited. Promoting eco-labelling can be put into three categories. There is marketing to consumers or end-users, marketing to producers or license holders and finally, event related marketing, usually as a media attraction. Graphic 3 identifies the promotional channels used in eco-labelling.

### Graphic 3

<table>
<thead>
<tr>
<th>Eco-labelling Promotional Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer Focus</strong></td>
</tr>
<tr>
<td>Public Market (mass media, POS)</td>
</tr>
<tr>
<td>Procurement Market (trade shows, standard setting)</td>
</tr>
<tr>
<td><strong>Producer Focus</strong></td>
</tr>
<tr>
<td>Awareness Building (trade shows, industry papers)</td>
</tr>
<tr>
<td>Potential Licensees (direct marketing, workshops)</td>
</tr>
<tr>
<td><strong>Media/Press</strong></td>
</tr>
<tr>
<td>Eco-labelling Events (anniversaries, awards)</td>
</tr>
<tr>
<td>Environmental Issues (international agreements, ecological disasters)</td>
</tr>
</tbody>
</table>
**Consumer focus**
In the first case, marketing to consumers is limited. Although so many programmes identified themselves as consumer oriented, advertising budgets are minuscule. There is a relational imbalance in promoting eco-labelled products which are often few and hard to find on the supermarket shelves. The Scandinavian countries engage in general awareness building every few years – whether this accounts for steady awareness rates of between 60 – 90 % is unclear. Japan undertook a consumer oriented campaign beginning in November 2003. Czech Republic, in kick-starting their eco-labelling programme, began a mass media campaign in October 2003 in Hradec Kralove, a city of 120,000. City buses and trams were painted in the eco-label colours along with bus station placards, and information kits about eco-labelled products were provided at the point of sale (POS). Rather than attempting mass media, for which budgets are insufficient, co-operation with two grocery chains with combined 480 outlets, the EcoMark was promoted at the POS. Impact on awareness levels are yet to be determined.

**Producer focus**
Canada took an alternate route in generating awareness for the Eco-logo. Rather than attempting to educate consumers nation-wide about Environmental Choice, they focussed on public procurement officers, a tractable group which also allows response tracking. Workshops, seminars, speaking engagements and strong ties to the North American Green Purchasing Initiative led a concentrated effort on procurement. The Asian eco-labelling programmes are also concentrating on the public and professional procurement market.

**Media/Press**
Promotion through media and press has come about in two ways. Deliberate events related to eco-labelling, such as the awarding of the eco-label license to a producer or the anniversary of the eco-labelling programme, offers a natural opportunity for eco-labelling to attract media headlines. The German Blue Angel programme capitalised on their 25th anniversary in 2003, the longest running programme in the world, as did Taiwan who celebrated their 10th anniversary.

Alternately, when there are ecological disasters, for example, there may be a direct link between the cause of the problem and the environmental issue addressed by the eco-label.4

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4 Some would strongly debate whether an environmental issue (i.e. clean air) can be directly linked to consumption of one product or product group.
Media attention to the issue can be the best advertisement which fosters public readiness to enact behavioural change.

In general, most eco-labelling managers mentioned that more ‘branding’ of the eco-label is required to improve consumer awareness and to make eco-labelling attractive to producers.

5. **Is the organisation behind the eco-label free from conflict of interest?**

In general, the eco-labelling managers claimed that their organisation was free from conflict of interest. Most programmes are fully transparent and have a third party independent award committee which is separate from the standard setting organisation. There were, however, a few notable comments.

It was mentioned that if an eco-labelling programme is totally free from conflict per se, then there is insufficient stakeholder involvement. The balance between the various stakeholder demands is what gives strength to the eco-labelling programme.

Further, the structure of an eco-labelling programme lends itself to internal conflict. There exists the need to generate revenue through issuing licenses. There can be a conflict between issuing licenses and maintaining credibility (i.e. issuing labels randomly will only work short-term).

The second inherent conflict of eco-labelling concerns the product group function. The nature of the eco-label suggests that labelled products should be environmentally benign and consistent with the tenets of sustainable consumption. Hence the choice of product groups should reflect this philosophy. An eco-label for an automobile does not exist, but the surrounding debate typifies the eco-labelling conflict of interest. Pure environmentalists oppose a label for a car by identifying the bike or train as the appropriate alternate transportation. The counter argument is that private transport is a necessity. It is therefore prudent to identify the best choice of car with the lowest environmental impact. One way to do this is through the eco-label.

Finally, in the Czech Republic, a conflict of priorities was mentioned. On the one hand, there is the national aim toward sustainable development, while on the other hand, regional development is also a priority. Hence green public procurement has been difficult to implement. The priority in procurement has been set for regional development.
6. What are the benefits of eco-labelling to your country or region?

The benefits of eco-labelling fell into three main categories: consumer benefits, producer benefits and advantage to government. A fourth category, social development, encompasses a miscellaneous group of answers.

**Consumer benefits**
Product quality and price are relatively easy for consumers to compare. It is difficult, however, for consumers to compare environmental aspects of their consumer choices. Hence eco-labelling is seen as an aid to consumers to help them in their buying decisions when considering price, quality and environmental aspects. Further, environmental issues are usually complex in nature, and again difficult for consumers to comprehend. Eco-labelling, in this sense, simplifies a complex message, making it both understandable and meaningful to the consumer. A final consumer benefit derived from eco-labelling is that it helps consumers choose products that are consistent with their personal desires. Through eco-labelling, consumers are given the choice to exercise their demand for environmentally preferable products, thereby voicing their preferences on the market and also increasing their shopping utility by obtaining products which they desire.

**Producer benefits**
Eco-labelling was said to benefit producers in four different ways. Firstly, eco-labelling helps producers to develop products and production processes in the ‘right direction’ toward increased environmental efficiency. Eco-labelling standards are typically a good indicator of the future environmental framework within which industry will operate. Close contact with eco-labelling organisations give producers an early start in making process changes which often become future regulation. Secondly, for producers who are proactive in pursuing change, eco-labelling reduces their risk by demonstrating a workable change in processes. It may also have a multiplier effect as producers compete to surpass existing criteria. Thirdly, eco-labelling provides a high standard of guidance for producers who could not afford an internal environmental management programme, or producers who otherwise shy away from eco-design. Eco-labelling again provides producers with workable guidelines by which to operate. Finally, producers benefit from eco-labelling if they exercise the first mover advantage in eco-design and environmental friendlier production processes. The eco-label
license gives such producers third party verification and recognition in environmental stewardship.

**Government benefits**
Firstly, having a national eco-label programme demonstrates the involvement and effectiveness of the EPA or Ministry of Environment. The eco-label symbolises their reach beyond the bureaucratic doors into both the business community and society at large. Secondly, eco-labelling is a standard tool which better enables green purchasing policies in government procurement. Thirdly, eco-labelling is a good public relations tool for politicians who claim commitment to environmental protection. Considered the soft alternative to eco-taxes, eco-labelling provides a publicly acceptable forum for politicians to test the environmental waters of the voting public.

**Social benefits**
Eco-labelling managers mentioned various multiplier effects of having an eco-labelling programme. In many countries, eco-labelling is an organised pro-active environmental movement. Because eco-labelling is voluntary, the ‘rules’ and criteria may go well beyond the existing legal minimum. This allows eco-labelling to work on specific environmental issues or on particular substances whose environmental impact is critical or not yet known. Where the regulatory environment requires scientific (and economic) proof of claim, eco-labelling can act in a manner of best interest, more similar to the precautionary principle set out in the Rio declaration on sustainability.5

The multiple stakeholder involvement in eco-labelling gives it high credibility. Eco-labels are therefore, in general, more respected on the market than are independent self-claims of environmental stewardship. Having a national or regional eco-labelling organisation reduces the need for individual green claims. Fewer eco-labels are believed to be better for consumer understanding and producer credibility.

A final benefit of eco-labelling which was mentioned by the future EU member states as well as exporting countries is that having a well-known and well-respected eco-label on products gives the products better acceptance on the export market. This was mentioned not only as a

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5 1992 Rio Declaration on Environment and Development: Principle 15 - In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. www.unep.org
benefit to East European producers exporting to the EU but also by a Canadian company trying to position its product with an environmental image on the Greek market.

**Environmental importance of the eco-label**

7. **What are the main environmental problems addressed by the eco-label?**

The correlation between eco-labelling and environmental issues, perhaps ironically, is almost impossible to establish. Some programmes managers stated that there is simply no deliberate strategy for their programme to address environmental problems. Some managers did cite a list of issues which the eco-labelling programme is designed to address. The main categories include: resource use, water and energy consumption and pollution management. Interestingly, some eco-labelling managers included topics such as child poverty and social equity. The impact of eco-labelling on these issues, however, is so small as to be insignificant.

Eco-labelling programmes may design their strategy based on goals that are issue specific, product specific or even firm specific. As an example, the Bra Miljöva label, as part of the Swedish Society for Nature Conservation, align their eco-labelling goals with the directional aim of the works of the agency. This may be toward banning a specific substance. The Croatian Prijatelj Okolisa, in contrast, may seek out producers who are known to be particularly lacking in environmental awareness in production practices and will work directly with them to implement more sustainable business. Finally, in Canada, the Environmental Choice programme concentrates on a specific product or product group, and build up a comprehensive labelling system which aims to minimise the environmental impact of the products in general.

Another worthy point of discussion is that it was admitted by all labelling programme managers that the link between eco-labelling and environmental issues is often difficult to establish. Further, the impact of eco-labelling on these environmental issues in absolute terms is probably not significant. The value of the eco-label is seen as being more relative in that it encourages consumers and producers to move that one crucial step forward toward environmental thinking and related behaviour.
8. How well-known are these problems in the general public?

It was generally believed that the average consumer does have at least a base knowledge or understanding of the environmental issues which eco-labelling address. This passive knowledge however is followed by a rather hefty list of limitations and restrictions.

Environmental problems are understood however:

- Consumers are not clear what they can do to enact change
- Consumers may not believe that their actions have any positive or negative impact on the environment (the relationship between the problem and individual behaviour is not understood)
- Consumers are lethargic to the problem (particularly since the 1990’s when personal health issues and employment have become a higher priority)
- Only become relevant when it becomes a health issue (demonstrated in Toronto during the garbage strike in the summer of 2003)
- Are too geographically removed to be affected by or concerned about (water preservation in the south of Spain where deserts have developed is almost unknown outside of the region)
- Consumers blame industry and feel powerless to act
- Consumers trust or rely on government to control environmental matters and therefore do not act
- Consumers cannot afford to respond (and may do so only when cost-savings are evident)

Three generalisations can be made. First, consumers only understand issues when it affects them directly. Most consumers can probably list environmental problems but they do not understand the relevance of the problem. The media promotes specific topics however, in a country the size of Canada, for example, geography affects understanding of topics (i.e. public service announcements on the east coast may be misunderstood or perceived as irrelevant in the prairies, an entirely different geographic and climatic landscape).

Secondly, it is important for the credibility of the eco-label to give some relativity to environmental problems. The quantifiable truth, however, is difficult to establish and it is easy to mislead consumers.
Thirdly, a great obstacle to eco-labelling is that the consumer public do not understand “environment” in a comprehensive way. The environment is perceived as an external entity, something which is beyond the individual urban dweller. Consumers lack a holistic understanding of the ecology, splitting elements of the natural world as though they do not function interactively.

9. What kind of education concerning environmental issues do consumers receive either from the eco-labelling programme, government, NGO's or other?

An evident weakness in almost all eco-labelling programmes that were analysed is that there is only a very weak link between consumer education and environmental issues. Eco-labelling programmes typically organise meetings with consumer and industry associations, and governments and NGO’s advertise or provide theme-based public service announcements. The media or a key cabinet minister may address a topical issue. Recently, school children in Japan and across Asia, in Germany, Austria, Czech Republic and other European countries, received education on eco-labelling and environmental or sustainable consumption. These splintered efforts lack co-ordination and synergy, leaving consumers passive and averting personal responsibility. The link between ecology and consumption is mostly absent in all countries.

10. What are the effects of the eco-labelling programme on environmental protection (i.e. change in status on the political or social level)?

A direct correlation between the existence of eco-labelling and changes in environmental protection is impossible to establish. What can be theorised is that certain environmental initiatives may have grown following the example of eco-labelling. In the first case, eco-labelling has proven successful in influencing the regulatory environment. Criteria for eco-labels are generally higher than national legislation – the eco-labelling product groups are hence used as a practical state-of-the-art example of functioning environmental innovation. This can and has led to new standards being set.
Secondly, eco-labelling is thought to be responsible for raising environmental awareness in some cases. This increased awareness in the public domain prioritises the environmental agenda at the political level.

Thirdly, eco-labelling confirmed that the market arena is a place for an environmental steering mechanism. If consumers are the greatest threat to the environment, then eco-labelling is an appropriate medium to communicate with this group. It takes the notion of consumer power and turns it into an enabler of environmental activism.

11. How do you assess the importance of the eco-label in promoting the advancement of environmentally friendly products and ecological innovation?

There is not a clear relationship between eco-labelling and increased production innovation. Most eco-labelling managers said that the indirect effects of eco-labelling are thought to be greater than any direct effects. On the positive side, producers have changed production processes in order to qualify for the label and further, will adapt processes in order to meet increased stringency requirements and re-new the eco-label license every three years, providing the required investments are not excessive.

Eco-labelling demonstrates a market-oriented solution in environmental production improvements. This may lay the groundwork for and inspire the enactment of appropriate directives and law which have been proven as market-functioning solutions. Front-runner firms which have been practising through eco-labelling will easily meet the new legal criteria. In industries where the environment is already a competitive factor, eco-labelling may not be so much an incentive for production innovation as it is a reward. Only in industries where the environment has not yet been used as a competitive tool can eco-labelling be seen as a motivator for environmentally oriented innovation.

Finally, it was often stated that ecological innovation is not the aim of eco-labelling. The label applies to the existing market and therefore the label can only confirm innovation. Labelled products are not a blueprint for ecological design, however it does set a benchmark and stimulates producers who are currently below that benchmark.
Eco-label programme characteristics

12. What has been the most important achievement of the eco-label programme?

Despite an abundance of enthusiasm, the achievements of the eco-labelling programmes were somehow weak. In the worse case, it was mentioned that the organisation’s survival had been the most important achievement. This indicates a lack of political backing for the eco-labelling initiative. Without strong political and institutional support for eco-labelling, programme directors constantly need to justify the existence of the programme (not to mention the issue of job security) rather than focus on the business of eco-labelling. In contrast, severing the relationship to the government was also seen as an achievement. Ties with the government inhibited market responsive and opportunistic operations.

Convincing firms to participate in the eco-labelling programme and to pay for a license was another claim to success which lacks dazzle. In Spain, for example, where the tendency is for companies to walk the line of the easier and cheaper ISO 14000, it is an accomplishment in itself. This also demonstrates that eco-labelling does exist in a competitive environment where alternate environmental claims and programmes detract firms away from the perhaps more complex eco-label.

In Denmark, success has been in certain product groups - cleaning products, paper, personal hygiene products, textiles – products which have direct contact to the consumer. In this sense, it is product group specific, a tip perhaps for how and why eco-labelling may experience greater take-up and use. In Taiwan, government procurement was cited as the most important achievement of the programme. Taiwan is the first country to enact a law (Japan second) creating a green public procurement policy.

Thailand is the only developing country which has had a scheme for 10 years (200 products, 33 firms), and is considered a showcase for developing countries. Finally, giving “green” a meaning – content to environmental preferences – was mentioned as an achievement of the programme.

The marked differences of the achievements mentioned in this question compared to the successes listed in question 2 demonstrates the variance between the theoretical potential of eco-labelling and the reality of practice.
13. Do you consider the eco-label as an environmental policy? An economic instrument? A consumer mechanism?

The breadth of answers to question 13 indicate the complexity of eco-labelling as well as the lack of consensus on its function. Many managers expressed that eco-labelling is both an environmental policy and an economic instrument. At the same time, a few pointed out that eco-labelling is anything but an economic instrument. There was also a strong belief by some that eco-labelling is a consumer mechanism. It was also considered that eco-labelling is a political instrument as well as a marketing tool. This shows that eco-labelling somehow has impact in all of the mentioned spheres – environment, economics, consumerism, politics, and marketing - however is insufficient to be really convincing in any one area.

14. Who is the best administrator of an eco-labelling scheme?

It should first be noted that there is a difference between criteria setting and promotion of the programme and the certification or label award process. The first is operational and represents the ‘spirit’ of the organisation. The second is functional and represents the credibility of the programme.

Once again, the answers to this question were varied, indicating the complexity and scope of eco-labelling as well as the strong cultural element. In the first instance, many eco-label managers listed the participation of government as a crucial element in the success of a scheme. This could be any of the Ministry of Environment, Ministry of Industry or even Ministry of Consumer Affairs. It was often mentioned that the financial support of the government lent credibility to the eco-labelling operation. In summary, people trust the government to choose what is good for the environment.

In contrast to this, several eco-label managers stated that government was a hindrance to the eco-labelling programme. Firstly, industry in general is suspect of government intervention and may hesitate to become involved in a programme where monitoring is conducted. Secondly, government is restricted and cannot react to market signals appropriately. Many managers adamantly argued that the government, outside of providing financing, is not the best actor for an eco-labelling programme.

In contrast, the NGO is ascribed credibility and trustworthiness. Since a government ministry alone opens itself too much to political influence and intrigue, and further that the expertise
required is beyond scope of government, an NGO offers the duality of credibility and competence. Factors which influence the so-called best fit include culture, politics, market dynamic and management personalities.

_Eco-labelling world_

15. What other labels (international environmental labels or certifications) represent competition for your label?

Indeed there is a lot of labelling competition on the market, the nuances of which would be difficult for the consumer to discern. Five main themes can be identified as a response to this question. Firstly, the different types of labels (as mentioned in Chapter One), although technically unrelated and serving entirely different purposes, can act as competition. The typical Type I eco-label does endure competitive knocks from Type II private self-declarations, for example, as well as from single-issue labels (such as the Forest Stewardship Council), even if they are not considered comparable to the life-cycle oriented eco-label. The eco-labelling practitioners stand alone in recognising the difference in these labels.

A second area of competition, particularly related to producer relations, are the other environmental programmes that offer third party certification. The company-specific environmental management and audit system (EMAS), for example, is sometimes considered a preferable programme or strategy for the producer to follow rather than the product-specific eco-label. The meaning of EMAS is, of course, entirely different than the meaning of an eco-label, and although producers likely understand the difference, they may choose the path of least resistance and follow a programme where certification comes with a guarantee.

Thirdly, competition may arise from regional or local labels. Regional labels often are characterised as a symbol for quality, tradition and authenticity. These labels often are not environmental statements, but still lead the consumer to believe that the regional quality label is equivalent to an environmental label. This point provides a natural segue to the fourth theme. Food labels, normally outside the realm of eco-labels, are also competition to national eco-labels. Like the regional label, food labels often denote an intangible product quality that may or may not refer to the environmental preference of the product or its production process.
Finally, it was mentioned that the eco-labels as logos face competition from any other brand name and logo. Essentially, the eco-label is competing for the consumers’ attention in a marketplace overflowing with trusted brand names and well-known logos. Even finding space on the product or packaging – still usually relegated to the back of the box – is a huge obstacle for eco-labeling to overcome.

16. What is the effect of multiple eco-labels on the market?

Since it is acknowledged that multiple labels do pose competition on the eco-labelling playing field, the next question concerns the effect of the competition, whether it is seen as positive or negative.

The main finding from this question is that multiple labels simply confuse the consumer and lead to 'label fatigue' and 'label clutter'. Consumers already have an abundance of information to deal with at the point of sale. The message of one eco-label alone is difficult to convey. The messages of multiple labels adds to confusion. One eco-labelling manager mentioned that it would require a full-time job in order to shop with full information and stay abreast of ever-increasing amounts of consumer information. More labels are considered to lead to increased competition for resources, particularly concerning the marketing message. As mentioned in answers to previous questions, the consumer usually cannot tell the difference between the meaning of two or more different labels.

There was mention that multiple labels for different product groups might be acceptable and understandable to the consumer. Further, it might be possible for a product to have two labels indicating different environmental issues (i.e. one energy label, one chlorine-free label) although this runs the risk of leading to labelling clutter.

In contrast to perceived consumer confusion, some managers believed that multiple eco-labels have made the market for eco-labelling more dynamic. Awareness of one label leads consumers to seek out other environmental labels. Not only the awareness of the labels, but the general need for ecological awareness in the production - consumption process, is thought to be better known. Further, multiple labels on the market were seen to lead to an upward standardisation of criteria as the labels compete amongst themselves to become the ‘market leader’ in standard setting.

Admittedly, the risk of multiple labels on the market is credibility. With the various types of Type I and II labels, the hazard is that one bad label will destroy the credibility of all
environmental labels. Some consumers may be overwhelmed or become suspicious about the significance of the label.

Finally, it was mentioned that if the purpose of the eco-label is to encourage more environmentally benign consumption, then multiple labels should mean that there are increasingly more products available which are environmentally preferable to their competitive counterparts. This should then lead to a positive environmental effect, something at the very heart of eco-labelling itself.

17. Do you see or expect competition or convergence between national and international eco-labels?

As with many eco-labelling issues, the spectrum of reality is broad. It was observed that national eco-labels are not converging but are developing mutual recognition between countries. This leads to a harmonisation – and hopefully upward standardisation – of criteria. For consumers, a national label is better and easier to understand, and has more brand value. For producers, a harmonised system of mutual recognition is necessary to meet trade requirements.

18. Would a global eco-labelling scheme be possible?

A global label would be difficult to implement due to divergent markets, consumers and environmental conditions. It is important to understand that an appropriate eco-label is one which is relevant to local environmental and business conditions. Mutual recognition for like products which are sold world-wide would make a single standard more valuable. Another possibility for a global eco-label would be for multi-national products, such as electronic equipment, that do not vary according to region. Ultimately, the message from the eco-labelling managers is that a global eco-label “would be nice, but is not realistic”.

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Social context

19. How does local culture play a part in eco-labelling success or failure?

Consumer and producer groups could be identified. Some observations that were made are:

- Resistance to recycled products based on the belief that they are of inferior quality and that eco-labelled products do not meet the same quality standards. The Spanish manager, for example, referred to the law that packaging for food cannot be of recycled material. This promotes the idea that recycled products are not hygienic and safe for consumers.

- In New Zealand, awareness of environmental problems increased in conjunction with the realisation that tourism is directly dependent on the state of the environment. This encouraged a consumer willingness to change consumption behaviour, and acted as a springboard for the eco-labelling programme.

- In Taiwan, the group orientation of business has hindered the take-up of licenses. Local firms do not want to be eco-labelling front-runners or “pioneers”. Once the inertia of the first label license has been overcome however, other firms will clamour to follow. The front-runner who first takes the initiative is seen as risk taking, an undesirable role in a homogeneous business culture.

- The off-white colour of recycled paper, and sanitary products in particular, has been a deterrent to success in Thailand. Again ‘recycled’ is confused with ‘unsanitary’. Some firms who actually would qualify for an eco-label do not express interest. The eco-label has an unfortunate negative market value.

- In Canada, pollution is perceived as “industry’s fault” and therefore “the government should deal with it”. This has a dampening effect on the level of personal responsibility consumers will accept.

- The symbol of the Canadian eco-label has been at least partially rejected in Quebec because it is seen as a ‘national’ symbol. A national, hence Anglo-Canadian symbol has limited, if not a negative, market value within the French province of Quebec.

Each issue is particular to the local region and culture and should be considered in the future design and implementation of environmental labelling initiatives.
20. How does consumer culture play a part in eco-labelling?

Consumers world-wide want ultimately to exercise their right to consume. The priorities for the majority are price and quality, warranties and after-sales service, image and prestige. For the middle and upper classes who express their affluence and social position through the goods and services they buy, eco-labelling is usually not a priority. There are many fascinating country-specific examples of how consumer culture dominates the shoppers’ psyche.

In the Czech Republic, consumer behaviour can be seen in the context of short-term history. During the socialist regime, Czech consumers lacked buying power, consumer choice was limited and product availability was random. The recreational consumption of today therefore represents freedom for consumers. Shopping can be seen as political activism favouring the new economic order of the country.

In Thailand, city shopping malls are visited to escape the hot climate. The purchasing of goods may only be a by-product of the main attraction, that is the air conditioning. In Germany, where social prestige is important, an environmental advantage is not the deciding factor for conspicuous goods such as a car. Even with a guilty conscience, the brand of car is more important than environmental aspects.

In Norway, the group with the highest consumption have the highest income and highest education, and are also the most interested in eco-labelling. Eco-labelling is often a luxury good for affluent consumers in rich countries who can ‘afford’ to consider environmental factors in their purchasing behaviour.

Cracking the code of consumer culture is probably the key to successful eco-labelling (and likely a whole lot more ...). Eco-labelling organisations must work with consumers to understand their consumption aspirations, the importance of product features and functions, the use of products and the entire acquisition-use-disposal experience.

21. How is eco-labelling combined with other social goals?

Typically, national authorities support eco-labelling, however the organisation works independently and therefore a lack of formalised co-operation between eco-labelling and
other social goals is apparent in almost all schemes. The positive links identified are informal and more a result of coincidence than design.

The only specific example of deliberate co-ordination is from the Swedish NGO eco-label. The Bra Miljöval works pro-actively by sourcing substances that face potential regulation. If the Swedish EPA lists a chemical substance that is potentially ecologically damaging, or perceived as a health hazard, and therefore could be banned, the eco-labelling organisation creates methods and criteria that minimise or eliminate the use of the substance under suspicion. These solutions create a positive synergy in eliminating unnecessary contents or processes, and overcoming resistance to regulation and change.

A few eco-labelling managers mentioned that eco-labelling is recognised as complementary to sustainable consumption, however it is a very small part of a large and complex puzzle. It is more correct to say that eco-labelling is not combined with other social policies.

22. What policies conflict with your eco-labelling programme?

Conflicts of interest and programmes which unravel the work of eco-labelling programmes were not seen as significant at the national level. One manager mentioned that the various environmental declarations and programmes such as IPP and EMS, which should be at least ideologically supportive, are competitive and therefore may dilute interest in eco-labelling. Further, eco-labelling is sometimes criticised by industry as not being truly voluntary. Some policies ignore the existence of eco-labelling where there might be useful synergies. In general, however, eco-labelling can be seen as free from fundamental conflict.

Industry Impact

23. What motivates firms to use the eco-label?

Once again, the answers from the eco-labelling managers are spread across a wide spectrum, depending on country, culture, eco-labelling programme, time on market, etc. In Sweden, where eco-labelling programmes are firmly entrenched in business and in society, producers use the eco-label because it is a de facto market access prerequisite. Where eco-labelling is new on the market and poorly understood, and therefore lacks brand and market value, firms show less interest or less concrete reasons for acquiring the eco-label. It may be simply to communicate their own environmental achievements.
Graphic 4 shows the spectrum of possible motivations, from passive voluntarism to mandatory requirement. Most country managers reported that firms acquire the eco-label to enhance their image as an environmental leader and to maintain market share.

**Graphic 4**

<table>
<thead>
<tr>
<th>Motivations for Using the Eco-label</th>
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<tbody>
<tr>
<td>Market Access Prerequisite (de facto)</td>
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24. What are the effects of the eco-labelling programme on businesses (i.e. change in market share)?

Interestingly, although it was often mentioned that firms require the eco-label to remain competitive in their field, there is almost no data available which confirms or refutes this assumption. In many cases, the eco-labelling scheme was simply too new on the market (less than 2 years) to demonstrate significant influences. The best that can be said is that companies who use the eco-label do not lose market share.

**Consumer Impact**

25. How successful have eco-labels been in providing consumers with factual understandable information which can be used in the decision-making process at the point of sale?

The eco-label is believed to have a positive but un-quantified impact on consumers. Consumers have a positive attitude to the label but there is no evidence of changed behaviour. The number of eco-labels and product groups within each programme is increasing constantly, indicating that producers perceive a value in obtaining the label. Whether consumers are noticing the eco-labels is not known.
It was mentioned that it is beneficial to consumer understanding when the eco-label includes a relevant environmental issue which the consumer understands. The Blue Angel pioneered this concept by including a reference to the environmental issue within the logo.

26. How do you assess the importance of the eco-label in the advancement of environmentally conscious behaviour of consumers?

World-wide, shoppers consider price and quality as being the most important variables in the retail decision-making process. There are few things consumers will do for the environmental protection, and this only when it is easy and there is little or no sacrifice involved. Where eco-labelling is said to have positively influenced consumers is that it has recognised environmental behaviour and makes it easier for consumers who already demonstrate this tendency. Eco-labelling has facilitated consumers ability to exercise environmental preference. This leads to a snowball effect – once consumers start buying eco-labelled products, they look for other labels which also consider environmental aspects. Various eco-labelling programme managers mentioned that through education programmes, they expect behavioural changes in the future. School children who learn about eco-labelling and experience eco-labelling in schools during their formative years will hopefully develop into environmentally aware consumers. The present multiplier here is that kids influence parental purchasing choices, however no conclusive evidence proves that this correlation exists.

International scene

27. What main tendencies or trends do you see in eco-labelling at the international level?

The most dominant trend in eco-labelling at the moment is the thrust toward mutual recognition between national schemes. Globally recognised standard setting, testing methods and certification is becoming the norm. The GEN organisation attests to the favourable attitude toward increased co-operation and trust between Type I eco-labelling programmes.

The second major trend is green purchasing. Public procurement is law in Japan and the main focus of the Canadian programme is institutional buying. Eco-labelling enables easier
green procurement. Government procurement represents around 18% of GDP in North America, for example, a sizeable market for eco-labelling to impact. Thirdly, eco-labelling is increasingly accepted as a credible and legitimate strategy in the realm of policy-making, marketing and international trade. Both policy-makers and industry recognise the applications of eco-labelling. This has also resulted in the fourth trend, the increasing number of eco-labelling programmes sprouting up around the world, particularly in Asia.

Another trend or development in eco-labelling is the move toward more services. The environmental impact of intangible consumption, such as tourism, is being recognised, and eco-labels for services are increasing rapidly. Finally, another area of increased concentration on eco-labels is in the realm of academia and policy studies. Increased study and analysis of eco-labelling by graduate students of all disciplines (economics, psychology, sociology) in various countries is another verification that eco-labelling is being taken seriously.

**Future of eco-labelling**

28. What changes should be made to your eco-label programme over the coming years?

While some eco-labelling programmes, such as those in Spain and New Zealand, expect more involvement from the Ministry of Environment (more hands-on approach and more commitment), many others, such as Taiwan, aim for privatisation and self-sufficiency. Secondly, the number of licences, and hence product groups, available with the eco-label is yet another way to increase consumer awareness and action. The cycle of increased eco-labels leading to increased awareness leading to increased eco-labels is a natural result. It was also mentioned that the eco-labelling programmes must be better able to adapt to market conditions. Typically, criteria development for a new product takes 2 to 3 years. This process should be reduced to 2 to 3 months so that producers can act quickly on the new technology and take advantage of the first mover advantage.

Thirdly, an area where almost all eco-labelling managers were unanimous, is the need for increased marketing (and increased marketing budgets). Both producers and consumers are the target for increased marketing. Industry take-up will increase as consumer awareness
increases. The eco-label ‘brand value’ needs more attention to achieve higher market acceptance and ubiquity.

Finally, eco-labelling needs to develop stronger ties to social status. Eco-labelling is an important market mechanism for enacting cultural change toward sustainability. Eco-labelling needs the type of promotion that will reach the hearts and minds of consumers. Eco-labelling must shed it’s ‘alternative’ image and become mainstream status quo.

**Review of Highlights**

The interviews, hopefully reflecting investigative competence and academic rigour, created more questions than answers. This wealth of information surrounding the eco-labelling programme dynamics is certainly every researcher’s dream. What is revealed in the interviews is a variety of issues in and surrounding eco-labelling, some inherent to environmental labelling, and some concerning external systems and conflicts between social institutions. Below, the strengths, weaknesses, opportunities and limitations are summarised and eco-labelling can be seen in its multi-disciplinary or multi-system light.

**Strengths**

**Environmental awareness**
Eco-labelling has multiple, if subtle, benefits for consumers, producers, society in general and government. It cannot be said to benefit the environment directly, however it does show that environmental awareness is being raised, and this should act as a multiplier, and possibly enabler, of better environmental practices.

**Institutional significance**
Further, environmental labelling in general, and eco-labelling specifically, are acknowledged and accepted, if not loved, within these spheres. Eco-labelling can be considered as an “institution” within the economy, within society and at the international level.
**Weaknesses**

**Permission consumption**
The inherent problem or weakness of the eco-labelling concept is that it is consumption oriented and, in terms of threats to the environment, Western style consumption itself is the main problem. Eco-labelling does not discourage continued consumption, it simply points in the direction of consuming with more ‘eco-efficiency’. As Ylva Reinhardt stated at the 2001 Eco-labelling Nordic Workshop in Thidell/Edlund, “We cannot consume ourselves to a better environment”, hence the net effect of environmental ‘protection’ is seriously limited. It may mislead consumers by giving them a false sense of permission to consume.

**Environmental design**
Eco-labelling does not conclusively lead to product innovation. It may reward innovation, however it is not the primary incentive for eco-design. The indirect effect of awareness raising is likely the more potent element of the eco-labelling initiative. Further, the link between eco-labelling and environmental issues is almost impossible to establish. There is no direct correlation between eco-labelling and any reduction of the current global environmental problems. At best, eco-labelling is a positive factor toward environmentally preferable consumption. Finally, product groups are based on the technical feasibility and measurability of production changes, as well as producer willingness to address these changes. Therefore eco-labelling has more to do with ease of implementation than with the environmental relevance of the product group. Labelled products represent a small fraction of the consumer basket.

**Government relations**
The role of government is particularly thorny for many programmes. On the one hand, government support provides financial stability and adds credibility to the scheme, particularly in the eyes of consumers. On the other hand, the government may have other agendas which restrict the success of the programme. Companies may also be suspicious of government involvement.

**Measuring success**
Eco-labelling is always subject to the pragmatic balance between purist standards and attractiveness and attainability to producers. To encourage producer take-up, fees must be
kept reasonable. On the other hand, eco-labelling programmes need money for promotion which will be used to increase brand value. The measures of license take-up, product groups and number of products, relevance of product groups and products, consumer awareness and demand, and environmental impact reduction are used randomly to measure programme success. Most programmes lack a clearly defined definition of goals and measures of success.

**Opportunities**

**Broad reach**
One consistent observation of eco-labelling is that it is multi-disciplinary and therefore an opportunity for broad communication exists. Environmental labelling is forging a place within the worlds of consumer marketing and business, production design, economics, international trade and development. This represents a real opportunity as a policy tool due to the many accessible communication avenues. The reach of eco-labelling may not be deep but therefore can be broad. Accepted by various stakeholders as a legitimate policy tool, labelling communicates with a diverse group of producers, consumers, government and international policy representatives.

**Consumer relevance**
It has been mentioned that the inherent problem of environmental labelling is that it caters to consumers, the very culprits in environmental degradation. However this also represents an opportunity to communicate directly with consumers and to “create culture” so to speak. Eco-labelling is direct conversation with consumers. Consumers can learn morality in shopping as has been the case with, for example, ivory and to some degree, fur. With the right messaging, consumers attach moral values to material goods. This demonstrates that consumer behaviour can be influenced and cultural values which integrate environmental harmony can be achieved. The same is possible at a larger scale for environmental products. If consumers understand issues that are involved in eco-labelling, there will be a greater interest and willingness to react based on that information. If the public shows interest, the media will follow. If the media loves an issue, it will increase public interest which in turn increases political uptake. Once there is more political interest and action, the media will continue the cycle of interest. In the case of eco-labelling and encouraging more sustainable consumption patterns, a broad communication opportunity exists.
Eco-positioning

Environmental protection via eco-labelling appeals to a very small consumer group. Positioning of the environment as a unique selling point or as an issue of responsible consumption has missed the mark for most consumers. Price, quality and image take a priority in the consumer decision-making process. There is an opportunity for eco-labelling in terms of positioning “environmental protection” in the consumer psyche. Put simply, the “environment” has been badly marketed. It appeals to either the so-called alternative health conscious shopper or the high end consumer who can afford to pay more for the ‘luxury’ of environmental protection. A simple demographic consumer survey would show that few consumers fall into either of these categories. They are the minority and are at opposite ends of the consumer barometer. The environment has not been integrated into daily consumer practice. The UNEP is attempting to reposition the environment with a campaign that appeals to the younger generations. It avoids moral preaching about doing the right thing and is trying to play along with current cultural ideas of that which is “cool”. Cool is mainstream, after all, and it would be to the benefit of eco-labelling to attain that same status.

Policy co-ordination

Finally, an opportunity exists for eco-labelling to co-ordinate with other policies aimed toward environmental awareness, sustainable consumption and environmental protection, but it lacks co-ordination. This represents a lost opportunity and is damaging to the reputation of existing eco-labelling programmes which cannot realise full potential. If eco-labelling were better co-ordinated with other measures in the environmental tool box, the net effect, and multiplier effects, would be optimised.

Limitations

Such an abundance of enthusiasm unfortunately needs to be tempered with a dose of reality. Environmental labelling faces numerous limitations and should be seen in an appropriate context.

Programme funding

To be successful and attractive to producers and sellers, eco-labelling needs a market or brand value. Establishing market presence comes at great cost. On the one hand, eco-labelling is a voluntary programme and licensees have to pay for the license, use of the logo, auditing, revision, etc. On the other hand, funds are needed for the promotion of the programmes, which would increase market value and future take-up. Financing comes either
through licensing fees or government funding. High entry costs are dissuasive whereas government involvement is a double-edged sword.

Modern society
Another limitation to eco-labelling, and much beyond the control of programme managers, is the contemporary world. Economic instability, fears or experience with unemployment, and threats of terrorism are more dominant in the mind of the public. External threats dilute the eco-labelling or environmental issue. Essentially, any threat to security is competition for the eco-label, which relies on consumer awareness and understanding of the consequences of consumption. Economic security is a prerequisite to eco-labelling engagement. Only when a consumer population feels secure that their wealth is not threatened can they look to less immediate needs such as the future of the environment.

Market size
The size of market may strongly influence the feasibility and effectiveness of an eco-labelling programme. Where the market is small and few producers exist within each product group, it should be considered whether eco-labelling, dependent as it is on competition, is the appropriate policy for environmental change in production and consumption. An oligopolistic market does not necessarily encourage environmental change. As an example, in a market of two firms, the firm with eco-label may actually lose market share due to the price premium.

Marketing, promotion, awareness
Awareness building and messaging of eco-labelling has been weak at best. In communicating with consumers, eco-labelling exists in a high volume environment, competing as it does against a multi-billion dollar advertising industry. The first limitation to eco-labelling is that it lacks the financial support, and usually the marketing savvy, to get even close to popular name brands. As a brand, it lacks market value and market presence. The second more philosophical issue is how eco-labelling should join the marketing game without becoming culprit to the very system which it attempts to undermine. Firms who use the eco-label need to pledge more support to the brand. In current business culture, this is unlikely to happen to any significant degree.

Product group relevance
Proper choice of product groups is directly linked to the success of eco-labelling programmes, both from the consumer as well as producer side. Firstly, the environmental
issues have to be easily understood by consumers. When the criteria is perceived as relevant to the users, then labelled products are demanded and there is a subsequent higher market value. Not all products and production practices lend themselves so easily to being expressed in single symbol. Hence the range of products that are possible to label is restricted, and finding a presence in the broad consumer landscape is challenging.

**Western consumer culture**
The expression of success in Western culture is conspicuous consumption. ‘Consumer culture’ and ‘celebrity culture’ (cultural dominance of the rich and famous) are increasingly familiar in common vocabulary. Within the current cultural landscape, eco-labelling has no chance to combat the increasing consumption spiral. As mentioned above, morality can be imbued in the consumption of certain goods, however Western consumer culture is spreading. It is being defined as the benchmark by which less economically developed countries measure their own success. Western style consumption is a sought after goal. Reversing this trend is a daunting challenge.

**Globalisation**
Eco-labelling is entrenched in a global system of commerce that pursues economic growth without consideration for sustainability and the environment. It is a rather hostile environment for the eco-labelling message. In this current system, it is not yet clear who has the right or the responsibility to protect the environment and whether this is in the regional, national or international domain. The tiny eco-label has become a major trade issue and leads to many discussions on globalisation, environmental protection and institutional conflict.
Final remarks

The interviews reveal that eco-labelling has an identity crisis both as an independent system as well as within larger systems. It is interdisciplinary and flexible but it suffers from numerous restrictions and problems. Eco-labelling lacks co-ordination with other environmental policies and is not sufficiently recognised as a tool which, in combination with other policy instruments, can help to achieve certain environmental goals. Because it is a part of so many systems - social, economic, local, international – it lacks impact in any of them. However, it has proven itself as a market mechanism which perhaps deserves more attention.

It is important to understand the eco-labelling programme both within a country (consumers, producers, government and policy-makers) as well as the role of eco-labelling in the larger context (environmental movement, globalisation, civil society, international trade). Graphic 5, below, depicts the concentric worlds of eco-labelling.
Eco-labelling must be understood at both the micro level as well as at the macro level. Within and between these varied systems, an eco-labelling path must be found. When we see how each part fits with the whole, we can work back again to designing parts to best fit. By mixing theory and practice, the best frame of reference for eco-labelling can be established. In Chapter III, the economics of eco-labelling will be studied followed by the impact of eco-labelling on international trade and on the environment. The chapter will finish with a study of the effects of the eco-label on consumers and producers. This will provide the basis for Chapter IV, positioning environmental labelling within related socio-economic systems.
Chapter III  Eco-labelling: Spheres of Impact

Economics of eco-labelling

Eco-labelling does not lend itself well to neo-classical economic analysis. Assumptions of equilibrium market conditions, and homogeneous firm and consumer behaviour that focus on the commercial dimension tend to ignore broader socio-economic issues inherent to eco-labelling. Concepts such as utilitarianism and welfare-maximising behaviour fail to capture the plurality of the environmental labelling market. Firstly, rational man, when shopping for green goods, has a broader perspective than his neo-classical counterpart. Determinants in decision-making behaviour may be based on “values other than self-centred welfarism” (Paavola 2001), and moral values may alter so-called rational choice. Rationality in consumption cannot be separated from cultural values and social trends. Harrison (1999:46) states that "... the very existence of environmental groups, environmental laws and green consumerism flies in the face of a rational choice analysis." Secondly, utility optimisation requires longer-term thinking than is traditional in economic theory. As consumers consider the broader and longer term impact of their consumption choices, short-term individual gain is considered against the backdrop of environmental consequences. The negative effects of consumption are not immediate, and therefore achieving optimisation is considered along a broader time horizon. Thirdly, the behaviour of homeo economicus is influenced by social trends as much, if not more, than the pursuit of optimisation. The social component of consumption and of eco-labelling are invaluable determinants of choice. Cottica (1993) states further that when describing economic models of eco-labelling, it is the characteristic of the good that is relevant, not the good itself and that "... the existence of indivisibilities in consumption introduces non-linearities and further complications" that are awkward to capture in the traditional economic model. Additionally, empirical testing is not possible. Patterns of social behaviour can be identified, however it must be recognised that they do not follow the rational model of behaviour. The conditions they attempt to emulate are perpetually in a dynamic state.

Eco-labelling in the economic context

Eco-labelling enjoys unusually high status for a voluntary programme. Recognition does not indicate popularity however, and the label comes under heavy fire in academic discussions. Economists like the voluntary and market-oriented nature of labelling programmes and appreciate the corrective influence on market efficiency caused by asymmetric information
(Nimon 1998), but tend to be less enthusiastic when subjecting labelling variables to quasi-linear formulas and determining equilibrium supply and demand. Proponents of eco-labelling are inevitably frustrated when they see the results of economic analysis. Eco-labelling is on the margin of the economic process and does not hold up well when analysed according to neo-classical theories. It cannot be summed up and assessed according to individual variables. Social trends, consumer psychology and cultural specificity are difficult to model. The economics of eco-labelling is more about achieving social goals, therefore the economic process is strongly influenced by the social process. Only when the greater social dynamic of eco-labelling is acknowledged and integrated can economic analysis be useful.

Measuring the economic efficacy of eco-labelling therefore requires the consideration of a combination of criteria. Only in recent years has there been an effort toward quantitative analysis. In the following section, some of this work on eco-labelling will be discussed. Firstly, the impact of eco-labelling on the marketplace as an information tool is discussed as an introduction to the analysis of the impact of the eco-label on the price of goods. Often referred to as the price premium, it will be shown that eco-labelling does not always have the intended effect of increasing the price of labelled products. Secondly, certification operates in an imperfect world. Risks and unintended consequences of certification will be discussed. A third and related issue is the competitive incentive for producers interested in the eco-label. The value of the label is not only quantitative, but also qualitative, and this aspect will be explored. Fourthly, social benefits and multiplier effects are considered. Alternative policy tools and alternative consequences will also be considered, and the case for the absence of eco-labelling is considered. Finally, the shift in environmental thinking from a Newtonian paradigm to a holistic ecological paradigm will be discussed.

**Market correction**

**Solving asymmetric information**

Firms that use environmentally friendly production techniques face a problem of asymmetric information (Mason 2002). Based on product and packaging alone, the consumer rarely knows much about the production process and disposal impact of their purchase. Further, environmentally preferable production techniques are often costlier than the eco-absent alternative. When this is the case, firms have little incentive to seek production methods which have less environmental impact. Eco-labelling therefore proves to be a useful tool in providing producers with a stimulus to utilise environmentally preferred production
technologies by creating a price premium which can be passed on to consumers. When environmentally preferable production is also cost-saving, then the accrued benefits further increase. Additionally, consumers have greater information about their purchase. The eco-label signifies particular qualities associated with the product that may not be verifiable during the period of consumption (Morris 97). The provision of environmentally relevant information offers consumers the possibility of improving welfare by increasing market transparency (Björner 2002). Utility can actually increase as environmentally conscious consumers increase their satisfaction from the purchase of more environmentally benign products.

Further, Cottica (1993) states that information asymmetries imply „moral hazard“. „If quality cannot be assessed prior to purchase, manufacturers who sell experience goods have an incentive to undersupply quality.“ When there are no eco-labels to signify the „environmental quality“ of goods, there is no market for this type of good (Robertson 2003). Lohr (1998) identified the increased information costs for consumers in “... learning about and understanding a label's meaning, identifying desired products, and verifying the certification increase”. Counter to that, the label is said to act like a stamp of quality that “... reduce the costs to consumers primarily by reducing the time it takes for them to find an 'ethical product'”. (EC 1998: 32) Klein would see a further benefit of solving asymmetric information flows through eco-labelling as „the end of the rule of corporate censorship of environmental factors“ in products and production processes (Klein 2001). The consumers' right to know and right to choose is enhanced, thereby shifting power from producers to consumers.

**Product prices and eco-labelling**

**Assumptions for modelling**

The evaluation of the impact of eco-labelling on product price involves a variety of either/or assumptions. Firstly, firms engaging in environmental labelling either do so voluntarily or are compelled to do so to remain competitive. Here we will assume that eco-labelling is voluntary. Secondly, the technological changes required by the producer to obtain the eco-label license either cost more than the production processes of non-certified competitors or are less costly due to improved efficiencies. In this analysis, it is assumed that production processes qualifying for eco-labels is in fact more costly. Hence the price premium sought by licensed firms is meant to offset the increased production costs. Thirdly, in this argument, the

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6 *Experience* goods are those of which quality can only be assessed by purchase and consumption or use, such as restaurant meals or electrical appliances, in contrast to *search* goods of which quality can be assessed prior to purchase, such as with clothing. (Cottica 1993)
degree of price differentiation between labelled and non-labelled products is assumed to be sufficient to be worth the costs of changing production plus the costs of the labelling certification process for producers. The price must be above marginal production costs in order to give firms an incentive not to "deviate to low quality" (Liebi 2002). Further, eco-labelling is considered the only product differentiation between like goods. Finally, there is the assumption that there exists a market for environmentally certified goods at the individual and or/institutional level.

**Market split**
Labelling enables differentiation between conventionally produced goods and those that are environmentally preferable. This effectively creates two market segments or two sets of demand curves with which producers must negotiate (Larson 2002). It also enables producers to fetch a price premium for the preferred goods. When consumers can differentiate between goods based on the environmental label, and if they consider this factor to be of value, they will choose certified products despite the price premium. Larson (2002:6) writes that “... an eco-label will create higher price premiums when there is substantial excess demand ... in the market and if consumer demands for the labelled item are very inelastic.” The eco-label therefore enables both the demand and supply for certified goods to be recognisable. Henriksen (1998) identifies three possible scenarios that ensue. The existing demand for labelled products exceeds supply and social benefits accrue. Alternately, the demand for certified goods may be lower than the initial supply, thereby creating a deadweight loss. Finally, the demand for labelled goods may remain unchanged with the advent of labelling. In this case, the benefit is only to consumers who seek out eco-labelled goods. The shifting of the demand curve is dependent on the elasticity of the demand for certified and non-certified goods.

**Price impact**
Producers with positive profits and free market entry will shift toward environmentally preferable production processes to enter the market for certified goods when there is an identifiable consumer demand and a price premium for certified goods bearing the eco-label. The consumer willingness to pay for pricier eco-labelled goods offsets the anticipated decline of demand based on price alone. The willingness to pay may even encourage producers to increase production beyond pre-certification levels (Sedjo and Swallow 1999) to capture the premium. However there is a limit to voluntary market migration. "While a subset of firms may
well have incentives to voluntarily change their behaviour in response to demands by "green consumers", firms catering to "brown consumers", who are concerned primarily with price, will seek only to minimise their costs, including environmental control costs." (Harrison 1999:16) As consumers shift from non-certified to certified goods, the lower demand for non-labelled goods will be reflected in a reduced price. Once this happens, there may be a reverse shift as consumers revert back to non-labelled goods inspired by the increased price differential. "Large potential demand that is also price inelastic will support higher price premiums in the market, but even some minor positive supply response will substantially diminish the resulting market price premium for the eco-labelled item." (Larson 2002:1) If the reverse shift to non-labelled goods is large (dependent on consumer commitment and marginal willingness to pay for certified goods), labelled producers will have to reduce price to win back lost demand. Hence the price differential between certified and non-certified goods may decrease again. Björner et al (1993) also mention the risk of a reduction in demand by both concerned and unconcerned consumers, which ultimately could lead to a decrease in equilibrium market quantity for environmentally friendly products, although ideally eco-labelled products would push less environmentally friendly products out of the market. An adverse environmental effect is also more likely to occur if certified goods can be produced with low technology costs and if consumers value only the reduced environmental impact per unit and ignore the total volume impact. The lower the level of consumption for a product prior to the introduction of the label, the quicker the threshold quantity will be reached, and the more likely perverse effects are to arise. (Bougherara et al 2003)

Each of these possibilities varies according to product, product availability and substitutability, market dynamic and market share, hence the attempt to generalise the effect of eco-labelling on consumer goods is filled with numerous and irregular possibilities which are extraordinarily difficult to measure.

Sub-optimality?
Because eco-labelling is voluntary for both producers and consumers, it has limited scope and power as a market steering mechanism. It can hope to influence, but never directly determine, production and consumption volume. Subsequently the eco-labelling policy cannot "deliver an optimal level of resource depletion" (Robertson 2003) nor can it "drive the economy to the optimal amount of pollution emissions" (Cottica 1993). „Since eco-labels do not force consumers to internalise the external environmental costs ... they do not result in an optimal level of environmental damage“ (Björner 2002) pointing to a common fallacy that
labelling will enable consumers to internalise all environmental costs. This lack of direct and measurable impact due to voluntarism and policy structure weakens the perceived economic impact of eco-labelling. A policy that cannot be quantifiably measured leads economists and critics to deep suspicion.

**Lock-in**
Morris (1997) has identified the problem of "lock-in", the continued dominance of a particular technology despite the existence or possibility of a more efficient alternative. Lock-in can result from an eco-labelling policy where producers, adhering to certification criteria, conform to a technical standard that is based on old technology. Criteria revision, usually done every three years, may lag behind existing technology standards. Producers may also lack incentive to innovate and create new technology or production methods if it does not conform to labelling criteria. The problem, particularly prevalent in fast-changing industries, can ultimately lead to economic loss from foregone opportunities. The policy effect of eco-labelling can result in an economic loss through technology lock-in and lost innovation potential. Technical developments cannot be predicted, hence lock-in is very difficult to measure.

**Market dynamics**
The price premium is often cited as a factual demonstration of consumers’ willingness to pay for environmentally preferable goods. A critical question is whether or not producers’ are willing to fulfil that demand and whether it is commercially viable. The shift toward environmentally preferable production processes will be strongly determined by the nature of the industry and, very importantly, the stage of investment of the producer. Presumably investing in environmentally friendly production technology is neither easy nor, once implemented, easily reversible. Once the producer has made the investment, the consequences are often medium term. Sedjo and Swallow (1999) question whether markets will generate price signals sufficient to attract firms into certifiable production methods. If the price of certified goods is excessive, consumers will reject labelled products and demand will shift to unlabelled goods. In the worst case, increased demand for non-certified goods may exceed supply. This would have the effect of attracting certified producers into non-certifiable production, the very opposite of the intended effect of eco-labelling.
Mattoo and Singh (1994) demonstrate that labelling can have an adverse effect on the environment if the supply of labelled goods should exceed the demand for such goods prior to labelling. If supply is higher than demand, only environmentally conscious consumers will
respond to the label and the subsequent price will fall. Once the price decreases, the differential between labelled and non-labelled goods will decrease, and the significance of the incentive for producers, as above, will be lost. If too many firms seek certification, they will crowd the market and reduce or eliminate the price advantage for existing labelled producers. This has two results. First, a greater share of producers will engage in environmentally preferable production and secondly, the non-labelled producers may enjoy gains in average prices.

**Market share**
As long as labelled goods are ‘taking away’ market share from non-certified goods, then the assumption is that labelling has a positive environmental impact. Consumers who are willing to pay more for better environmental quality experience increased utility, producers voluntarily determine production processes, experience increased competitiveness and earn a price premium, and ultimately, the environmental impact of this commercial cycle is reduced. The area of doubt is whether more firms are shifting to certified production processes or whether certified producers are increasing production volume to capitalise on the higher price premium. If the difference between the price of labelled and non-labelled products is small, consumers may respond more positively to certified goods and even increase demand. If the price difference is significant, consumers will shy away from labelled goods, and there will be a disincentive for producers who seek a larger price premium to offset the cost of the certification process.

Demand for labelled products should be considered in relation to overall demand. If consumer willingness to pay is very high, the demand for certified products may increase such that the market equilibrium of goods actually increases after certification (Sedjo and Swallow 1999) and the differentiation of products due to labelling may lead to increased sales of products made by both environmentally-friendly and environmentally-unfriendly methods.

Demand may shift between certified and non-certified goods depending on the price differential, the available supply of labelled goods versus non-labelled goods and the consumers’ current willingness to pay in the current market situation.
**Changing assumptions**

**Costs and profitability**

As in this paper, the assumption is often made that changing production processes to qualify for certification is more costly than existing practices. However, this is not always true. Eco-efficiency, the use of less material input or an improvement in technology, lead to environmentally preferable production and may lead to reducing overall costs. With reduced input costs, firms may doubly benefit from increased profit margins as well as the price premium obtained for the eco-label. The production changes may also lead to quality improvements, particularly related to health and safety, which in turn can generate a price premium for producers. Quality improvements can also enhance the product USP (Unique Selling Point), firm image and reputation, leading to a better reputation and increased customer loyalty. Eco-efficiency can therefore make a positive contribution to a producer’s bottom line.

**Imperfect market conditions**

Economic models assume an economic actor that is presumed to have "knowledge of the relevant aspects of his environment which is at least impressively clear and voluminous", "a well organised and stable system of preferences" and "a skill in computation that enables him ... to reach the highest point on his preference scale." (Simon 1955:99) These are heavy assumptions to make in today's consumer market. The volume of information available to consumers, and the attempt to manipulate preferences, is nothing less than overwhelming, and it would be impossible for economic actors to have full knowledge of the market on which to base their preferences. This fact is further aggravated by hidden information about the market. Consumers need to know about the existence of certified goods to be able to seek them out in the marketplace. Eco-labelling is generally not well promoted. Consumers may choose labelled products for non-traditional reasons that defy classically defined economic modelling criteria such as perceived product quality or health benefits. It is also possible that the eco-label on the product or packaging is neither recognised nor known. Consumers may be responding to other factors at the point of sale such as brand recognition, sales, or a host of other influences.

It is important to note that eco-labelling, as a system, is dependent on two continuous independent variables that must be present. Firstly, the very idea of eco-labelling and green consumption only works for "industries where the environment is, or can be made, an important differentiation factor" (Cottica 1993). This implies that eco-labelling does not work for all product groups and is not a universal instrument. Secondly, the differentiation factor is
only possible through labelling and monitoring. Without labelling, consumers will not pay a premium. The consumers' trust in "non-observable product quality is a combination of price premium and monitoring" (Liebi 2002). Firms therefore will continue to invest in the monitoring and eco-labelling process to gain the price premium.

This overview of the impact of eco-labelling on price and market share demonstrates the complex nature of the system environment for environmental labelling. The analysis offers numerous possibilities without indication of the probability of realisation. It can be concluded that eco-labelling has an irrefutable but indeterminate impact on price as well as on market share and producer activity. The nature of the domestic market and the existence of willing consumers seem to be key factors that determine the impact, and success, of eco-labelling.

Certification risks

The implementation of a voluntary eco-labelling programme automatically creates four categories of firms (Mason 2002). In Graphic 6, adapted from Mason's original categorisation, they have been identified as Environmental Stewards, Environmental Flukes, Environmentally Ambiguous, and Environmental Failures. Environmental Stewards are firms who genuinely seek environmentally preferred production methods and are justly awarded certification. Environmental Flukes are producers who receive certification although failing to meet standards. This may be due to an inadequate certification process or firms who deliberately aim for certification, for purely economic or public relations reasons, without respecting the spirit of the initiative. Environmentally Ambiguous represent firms who are not labelled due to either a lack of information, awareness and financing or due to a deliberate choice not to pursue certification. Environmental Failures are firms who apply for the eco-label but do not succeed, either due to an error in the certification process (firms who do meet criteria but are erroneously assessed in the application process) or firms whose production processes do not meet certification criteria.
Ultimately, the categorisation of these firms results in a distinction between certified and uncertified products, as mentioned in the previous section. Uncertified producers, those choosing not to participate in the eco-labelling scheme - or those that cannot take part due to lack of information and financing or a strategic conflict - may be seen by consumers as “failing to meet criteria” although they may in fact meet, or even surpass, certification conditions. Depending on market structure and the demand for certified products, non-labelled goods are then subject to an unjust disadvantage. Producers of non-labelled products may suffer a negative demand shock if they do not or cannot produce environmentally preferable goods. This factor is further exaggerated when the dynamics of international trade are involved. Producers risk losing competitiveness and market share based on national preferences for environmentally preferable goods.

A further possible consequence is the development of an oligopoly where certified producers continue to gain market share, thereby edging out non-certified producers. When the market share of eco-labelled products continues to increase, producers jostle to remain within the 30% market share maximum usually aimed at with eco-labelling. Due to certified market entry restrictions, competitive pricing is improbable. Further, certified producers tend to be more involved stakeholders than their non-certified industry counterparts, hence giving them more influence on the developments of the certification requirements and process. This presents the risk of what is known as „institutional capture“, where labelling programmes become dominated by the interests of producers. Also, eco-labelling schemes tend to reflect the concerns of pressure groups in the nation or region where the label is developed (Morris...
1997:35), therefore favouring local goods and local production processes. From the perspective of the consumer, the difference between certified and uncertified goods may have an over-proportional impact on consumption behaviour and strongly influence the decision-making process. This potential polarisation between "good", or labelled products, and "bad", or unlabelled products, has the potential to skew market development.

**Product group problems**
Morris (1997) identifies an intrinsic bias in labelling in the form of product group categorisation. Ideally, products with the highest negative environmental impact ought to be the target of a well-designed eco-labelling programme. However product categories can be difficult to create and classify. Morris rightly mentions that many products have multiple uses, and therefore some products may fit into several categories. Bleach, for example, may be used to clean floors, bathrooms or clothes. Applying an eco-label to a product which may be used in an application other than that for which the category is designed clearly can lead to misunderstanding. Product group categorisation will then lead to similar problems as with certification - some labelled products will be placed in a category where the application of use is different than intended. This can be confusing and misleading to the consumer, market distorting within the product category and of course environmentally risky. Further, product groups for eco-labelling will be selected only where environmental impact can be measurably reduced using existing technology. Hence there is unavoidable randomness in the categorisation of eco-label product groups.

**Effect on competitiveness**
Over the past twenty years, consumers have 1) avoided buying products because they believe the product or product packaging is environmentally harmful, 2) purchased a product specifically because of environmental advertising or labelling and 3) demonstrated their willingness to pay more for products perceived to be environmentally preferable (Grimes 1996), giving the issue of "environment" a definite competitive positioning potential. In a 1998 study of certified companies using the German Blue Angel (UBA 1998), the main reasons producers cited for using the eco-label included bettering the chances of a product’s success on the market, fulfilling customer expectations, and bettering the company’s image, all of which relate directly to producer competitiveness. Other possible answers included helping protect the environment, exploiting competitive advantages, responding to competition and satisfying trader’s requirements, again relating to competitiveness. The price premium, and the presence of extra profits to be earned, also triggers entry into the certified market,
therefore increasing competitiveness within the industry sector (Cottica 1993). Since eco-
labelling can potentially affect all of price, quality and image, it clearly can influence the
competitiveness of producers.

Reducing unfair competition

The establishment of a government sponsored or independent third party environmental
labelling programme validates the necessity of labelling and the need to provide consumers
with relevant environmental information. Legitimate certification programmes are beneficial to
public interest because they can reduce the level of so-called greenwash, the overuse and
abuse of environmental claims on products. Green claims often confuse the consumer and
provide a false sense of the true environmental impact of a product. Some products have
been labelled in a way which could be construed as deceptive. Morris (1997) provides the
example of labelling plastic rubbish bags as ‘biodegradable’, when decomposition in the
anaerobic conditions of a landfill site may take 50 years. When ‘ozone friendly’ or ‘recycled
packaging’ appears on the product or product packaging, it is often misunderstood and
interpreted to mean that the entire product is environmentally friendly (New Zealand Ministry
of Environment, 2001). It lulls the consumer into a comfortable state of believing that the
environmental impact of their purchasing decision is insignificant. The eco-label has the dual
benefit of providing credible and meaningful information to consumers, while at the same
time eliminating unfair advantages gained by making exaggerated and unsubstantiated
environmental claims that might sway consumer behaviour. In this sense, environmental
labelling levels the playing field and allows the market to function more efficiently and
according the fuller consumer information.

Competition between labels

The proliferation of legitimate labels on the market can be as confusing as greenwash and
also lead to unfair competition. Eco-labels have a certain ‘brand value’ (to be discussed in
more detail in Chapter 4), which both consumers and producers associate with certain
product qualities characterised by the label. These qualities may include stringency of
certification criteria, relevance of information and appropriate licensing procedures. Despite
these obvious advantages, more eco-labelling does not necessarily mean a more
environmentally benign product range for consumers. Labels, like any piece of product or
brand information, compete for resources, advertising and packaging space. The creation of
a label market also results in competition amongst labels.
Multiple eco-labels may confuse the consumer and undermine the meaning of the labelling movement. It may further lead to what is known in the marketing industry as 'cannibalisation', when one brand mark of a producer takes over the market share from another brand mark of the same producer (desirable in phasing out old brands or introducing new brands with higher margins). Environmentally brand conscious consumers may move from one eco-label brand to another based on this misled brand loyalty, and may not respond to other eco-label brands of legitimate value. Morris (1997) identifies instances of certification requirements for two different labelling schemes that have criteria sets that are mutually exclusive. It is therefore not possible to sell the same product in every country with a label from each. (This issue is being dealt with by GEN and will be discussed in the next section of this chapter.)

The net effect is that eco-labels compete for market share rather than broadening the volume of consumption with the eco-label. When this situation occurs, the eco-label becomes a competitive factor in brand value.

de facto industry standard

Eco-labelling can have a major impact on competitiveness when either the criteria for certification, or the eco-label itself, become necessary for market entry. When this happens, the environmental aspect of products or production processes cease to be a competitive advantage or point for product and marketing differentiation and become de facto industry standards. Certification ceases to be voluntary and becomes mandatory in the case of access to market or for consumer acceptance. This may occur when institutional buyers use certification criteria as an environmental benchmark in procurement. Suppliers will conform to the criteria in order to attain lucrative contracts. A second example of the spontaneous development of industry standards comes from Sweden. The grocery chain Ika set its own priority for shelving certain product groups bearing the Bra Miljöva or Nordic Swan eco-label. Consumers supported the initiative and the eco-label became a market entry requirement for laundry detergents and batteries. International producers who had ignored the eco-label in other countries were forced to seek out certification to enable continued market presence in Sweden. While some applaud the results - 100% market share of environmentally preferable goods - others draw attention to the dulling effect of universal standards on the economic incentive to innovate or surpass criteria requirements. In such a case, the once voluntary standards required for certification become the equivalent of mandatory regulation, which usually is criticised for being cumbersome and lacking in economic efficiency.
Spillovers
An area of risk identified by Björner et al (2002) concerns „image spillovers.“ Even if the labelling scheme stimulates green consumption, producers may increase investment in conventional polluting technologies. If the eco-label projects a positive image on all goods produced by the company, reflecting the power of a well-developed brand name, both green and conventional products experience increased demand. As mentioned previously, the brand association with the eco-label may have a powerful impact on company image and reputation. Once a producer has the reputation of a strong environmental orientation in production and product development - exemplified through certification of the eco-label - all goods bearing the company logo or brand logo may be assumed to have the accompanying eco-label. This spontaneous co-branding can be damaging to the effectiveness of the eco-labelling programme in general. It risks giving undue credibility to a producer and may provide a disincentive to competitive firms who eschew the label due to its brand association with competitors.

Social benefit and indirect effects
Eco-labelling is a market-based environmental policy tool and therefore social welfare is not a design priority. Still, with sustainable development as a broad social aim, any type of social policy needs to hold up in the light of broader social and environmental betterment. The real value of environmental labelling is often thought to be the indirect benefits. Hence the following six points ought to be analysed when reflecting upon the socio-economic value of an eco-labelling programme.

Increased environmental awareness
As is repeated throughout this paper - and many others - consumers need information in order to change behaviour. Eco-labelling communicates with the consumer directly at the point of sale, which some would argue is the best time in which to relay consumption-related environmental information to buyers. But the eco-label does more than provide product-related information. Eco-labelling can create or increase general existing environmental awareness. The presence of the eco-label leads consumers to think more about ecological issues of consumption within the retail environment as well as in broader, more general terms.

Further, the eco-labelling debate at the international level, particular within the WTO, is advancing the awareness level of environmental issues in business and international trade.
Cases such as the US-Mexico dolphin-free tuna eco-label bring attention to broader environmental issues, and cast at least a shadow of doubt on unrestricted neo-liberal economic policy. (The next section of this chapter covers international trade issues in more detail.)

**Reduction of the impacts of consumption**
Eco-labelling provides that golden combination of allowing consumers to maintain current consumption levels whilst simultaneously decreasing the impact of said consumption. The provision of information is less confrontational than traditional regulation since the consumption possibilities of households are not reduced. (Björner 2002) This very fact is what is so consternating to both eco-label critics and proponents of sustainable development. Eco-labelling policy does not alter the consumption volume, at least not deliberately. The sole aim is to reduce externalities inherent to consumption. This, however, is not without merit. Reducing the negative impact of consumption - less pollution, less energy use - is cost saving and welfare enhancing.

**Enhancement of key environmental strategies**
Eco-labelling is best seen as one policy tool which, in combination with other mechanisms, can lead to better environmental management. Eco-labelling is often the most visible, as well as the most acceptable, environmental policy tool. As a voluntary programme, its success lies entirely in the willingness of producers to pursue certification and consumers to seek out certified products. Power is in reaching the masses. Few policies are designed to speak directly to environmentally conscious consumer groups. A well-designed eco-labelling programme can enhance regulatory and command and control style environmental management. Björner (2002) writes that information, plus fiscal incentives, have synergetic effects on behaviour. Eco-labelling should increase the environmental information for consumers and change their subsequent behaviour, leading to more sustainable market decisions.

**Promotion of eco-efficiency**
"Eco-efficiency" refers to how environmental resources are used to produce a unit of economic activity. The importance of eco-efficiency is underlined in the Rio Declaration on Sustainable Development. With the aim of leaving the earth in a similar condition as we of the current generations found it, eco-efficiency is taking on a sacred value. Popular slogans
such as “reduce, re-use, recycle” are rhetorical expressions that indicate the social internalisation and normalisation of environmental values. Eco-labelling does not guarantee environmental best practices. However, it does indicate current practices and products that have the least damaging environmental impact, and it provides market incentives to pursue best practices.

**Creation of a credence good market**

The eco-label allows consumers to distinguish between like goods based on non-observable and non-ascertainable qualities such as production process and product content. Hence a market for so-called credence goods (Larson 2002) is created. This increases market variety and choice, thereby enhancing utility for credence-seeking consumers. It also promotes the ability of the market to deliver what the consumer really wants. Another benefit is that eco-labelling allows consumers to compare like goods and determine whether the certified goods perform differently due to the eco-label. Labelled coffee, for example, can be subjected to taste comparisons with the knowledge of how the coffee was produced.

**Good for business**

The business aspect of environmentally oriented business practices is receiving increasing attention from some surprising stakeholders. GreenBiz (April 15, 2004) points to the Winslow Green Screen Index (WGI), a list of 100 "green screened" companies which achieved almost 17% annualised returns since tracking began in 2000. This compares quite favourably with the 2.5% annualised returns reported for the Standard & Poor 500. Environmental labelling, certification of a producer's at least partial commitment to environmental issues, signifies integrity and builds trust. Managing the brand name in this way is also managing risk. Perhaps the most important benefit from an investment perspective is that engaging in corporate responsibility - in this case environmental precaution - decreases the risk of environmental liability. "If environmental labelling and certification programmes can provide credible, comparable and comprehensive information, then a company's environmental performance can be incorporated into calculations for its insurance premiums, financing conditions, and stock valuation." (Rotherham 1999) A company can increase stock prices by as much by 5% by implementing an environmental management system. (Rotherham 1999) The insurance industry is recognising the value of eco-labelling and decreasing insurance premiums for producers whose production processes abide by the environmental tenets approved by third party eco-labelling organisations.
These six points are not measurable, however they do have economic impact and therefore ought to be considered in the design and analysis of an eco-labelling programme.

**Alternative policies**

This section on the economics of eco-labelling has looked at eco-labelling and price impact, its effect on market dynamics and competition, certification risks and social benefits. It is impossible to conclude that eco-labelling is an effective policy tool nor can the absolute economic impact of eco-labelling be determined. In providing environmental information to consumers, eco-labelling does have a market corrective potential and can split the market between certified and non-certified goods. It can influence product price and equilibrium supply and demand, competitiveness of producers, and lead to a variety of social benefits such as increased eco-efficiency and enhancement of co-existing environmental strategies. The economic impact of eco-labelling depends on the product and product group, the elasticity of demand (and supply) within the product group as well as the local market for the product. This sort of ambiguity is rarely appreciated by policy analysts, however it would be irresponsible to declare that eco-labelling does or does not have positive economic impacts for producers. The various weaknesses and risks of eco-labelling programmes should be acknowledged and, where possible, improved upon in policy design.

One final area for consideration in analysing the economic impact of eco-labelling are the policy alternatives. Since eco-labelling consumes economic resources and is measured against the efficiency of the use and application of these resources, it is necessary to consider what action might take place in the absence of eco-labelling, and consider whether alternative policies might be a better use of resources. Environmental labelling exists as a complementary environmental policy tool, usually part of a range of activities deployed by government and NGO’s, and to a certain degree industry, toward maintaining some semblance of environmental protectionism. Here we look at an alternative social policy that might increase in intensity in the absence of environmental labelling.


*Alternative Possibilities in the Absence of Eco-labelling*

**Civil society action and other NGO activity**

In the absence of eco-labelling (referring to a programme under national authority), civil society and NGO activity might increase. Assuming that producers would not pursue environmentally oriented production without the price premium incentive provided to producers through the application of an environmental label, one must at least entertain the idea that NGO and civil society actors would take up more action than is currently the case. This could take the form of boycotts of products and producers with a particularly offensive environmental position, media scandals that would "name and shame" producers with poor environmental records, and NGO's that would lobby government for changes to environmental regulations in production processes. Consumer organisations might take more action to promote increased awareness about environmental issues and consumers' right to know, investment blocks could be formed against notorious polluters and lawsuits against companies with low social and environmental responsibility would become more frequent. Random publicising of environmental reports on companies that would have to defend current production practices would accompany increased action by the scientific community who campaign for greater corporate responsibility in science and technology development. All of the aforementioned activities are part of the civil society tool kit for promoting environmental awareness and seeking a better regulatory environment. Each method is common today. Assuming that existing eco-labelling satisfies at least a part of this civil society need, it is a logical conclusion that in the absence of eco-labelling, alternative activity would increase. A further consideration then, is the economic efficacy of eco-labelling in comparison to any of the NGO activities if these resources are reallocated to civil society action.

**Industry activity**

Without eco-labelling or other forms of environmental claims, producers could not attain the price premium necessary to offset the increased costs of environmentally preferred production processes. Assuming that there exists a pool of producers who would remain committed to environmental improvement, alternative action would be necessary. Self-declarations and other environmental claims might increasingly aggravate a market already saturated with *greenwash* and low credibility in terms of environmental claims. Industry might
increase its dialogue with consumers and enter into partnerships with NGO’s and civil society organisations in an attempt to find workable market solutions to environmental problems caused by production and consumption. Producers could also form partnership agreements within producer groups to raise industry standards, engage in monitoring of processes, create certification of production processes and encourage best practices. Like environmental labelling, industry alliances could be voluntary with mandatory standards. Producers might also forge alliances to seek chain of custody in supply chain management. A further possible activity might include community development where local producers work closely with local civil groups to maintain positive relationships.

**Government intervention**

Eco-labelling is an attractive environmental policy for government because of its voluntary nature. The absence of eco-labelling would indeed create a policy vacuum for many governments and pressure from NGO’s, civil society and consumer groups would force government to find alternative policies. So-called command and control regulation, taxes and standard setting that was popular in the 1970’s, offers a tougher alternative to eco-labelling. It is also often criticised for its end-of-pipe policy, that is not preventing or reducing production effluence but simply regulating it. Internalising the costs of pollution through Pigouvian taxes and permit trading aimed at producers is an unappealing option to industry, and the costs of pollution would be difficult to pass on to consumers. Subsidies for pollution control equipment are better received by industry. Command and control policies, which aim at industry, do not have the ability to influence consumer behaviour. Trade and import embargoes on environmentally risky products may be another alternative to eco-labelling, but this approach is contentious within the international trade framework. Finally, it might also be assumed that an absence of eco-labelling, and hence less popular environmental policy initiatives, could lead to a deterioration of relations between government and business due to the paternalistic nature of mandatory policy options. In summary, command and control regulations lead to revenue generation, or eco-taxes, that will be lost when eco-labelling becomes the more dominant policy, however non-quantifiable factors such as consumer influence and government-industry relations should also be considered.
International agreements and organisations
Finally, the absence of eco-labelling might also lead to developments at the international level. Organisations like the International Labour Organisation (ILO) help to expose corporations that violate universal norms and standards. Similar initiatives concerned with environmental performance might develop. The ISO 14001 environmental management system is one example of an internationally co-ordinated initiative for environmental management. Eco-labelling is one solution amongst many alternatives at the international level.

Shift in environmental economic thinking
There is a final point to consider in this discussion of the economics of eco-labelling. At the beginning of this chapter, it was stated that analysing eco-labelling, which is largely a social phenomenon, is a less than satisfactory exercise when conventional economic traditions and models are applied to the situation. This implies that the current methods of assessment are perhaps not suitable for the evaluation of eco-labelling. Economists, recognising the need to include environmental variables in economic equations, are seeking out a more holistic and qualitative approaches to the study economic phenomena.
A shift in thinking which proposes the integration of ecological concepts into traditional economic thought is beginning to replace old ideas. Spaargaren (2000: 56) writes „ ... the ecological switch-over should be interpreted in terms of ecological rationality catching up with the long standing dominance of the economic rationality without concluding from this the need for an abolition or abandoning of the economic rationality.“ Economics as a discipline remains unthreatened, however, the basic value set and its assumptions, particularly with regard to the environment, has been forced to accommodate modern forms of economic behaviour. Rational man, utility theory and supply and demand economics are being replaced by ideas about the market being determined by patterns in social interaction and human nature. Economic rationality is diluted when other meaningful elements such as values intervene (Jones 1997:36). Supply and demand, in the face of modern consumer culture and product branding, are somewhat rusty concepts when used to explain market activity. Ask any parent who has paid €90 for Nike sneakers for their 12 year old child. Eco-labelling embodies part of this general social change by recognising that the natural environment is as much a part of the economic equation as other inputs. Boyd writes that we are experiencing a shift „ ... from a linear economy, with waste and pollution as end products, to a closed-loop system, patterned after nature, ....“ (David Boyd, The Globe & Mail,

As economics changes its practices to encompass the social changes it attempts to model, eco-labelling can be set against new benchmarks according to economic principles that incorporate broader environmental issues. The polluter pays principle and the concept of externalities are being replaced by concepts of carrying capacity and sustainability. These are the new measures against which economic rationality must be measured.

**Conclusion**

Summing up the “economic impact of eco-labelling” is a rather risky business. There are multiple ways to measure eco-labelling and therein lies the dilemma. In conclusion then, when eco-labelling is subjected to economic analysis, a broad variety of criteria should be explored. There is no definitive or satisfactory conclusion to the puzzle of the economics of eco-labelling. Dismissing eco-labelling as economically inefficient based on isolated independent variables is errant. “Environmental problems are complex involving multiple causes and effects, having variable and sometimes irreversible impacts and can be persistent, pervasive but unmeasurable, so micro-economic theory can be useful but seldom wholly adequate.” (Dunkley 1999) As eco-labelling encompasses the social aim of moving toward more sustainable development, the type of economic analysis employed to evaluate it has to consider the broad social and environmental factors upon which eco-labelling can impinge and which have proven difficult to measure quantitatively.
Eco-labelling and International Trade

“In previous time, wealth was gained by war, plunder, slavery, tax-farming, and the like, a brutal zero-sum game. Now for the first time, productivity could be increased, generating increases in incomes and wealth that in turn could create economic surpluses without impoverishing the working class. This, at least, was the promise of economic liberalisation.”

Daniel Bell, The Coming of Post-Industrial Society 1999

Overview

Evolutionary trade
Evolutionary development occurs when a species develops beyond its existing environment and can adopt to a broader set of environmental conditions. Modern man has done something different. He has broadened the set of environmental conditions at his disposal to include both human capital and natural resources obtained from around the globe which make it possible to overcome regional carrying capacity constraints ... . (Wackernagel 2000)

Unsatisfied with the local array of goods on offer, society or synonymously in this case, economy is structured according to an ever changing set of possibilities through the increasing reliance on international trade. Many would say, in fact, that Western consumer society depends on it.

As society develops, particularly in the fields of science and technology, as well as the social sciences of economics and sociology, knowledge changes and our understanding of existing institutions change. It has become terribly en vogue to criticise the current new world economic order and international trade liberalising organisations such as the WTO. The existing geo-political and economic structure of global production relations is often cited as the core behind the problematic consequence of unsustainable production and consumption, and therefore environmental degradation. Hence international trade, once considered a facilitator of increased economic possibilities, is now often perceived as a system which creates dependencies, particularly along the north-south axis, and at the same time stultifies exploration of consumption alternatives.

Trade and environment
Environmental issues have not fared well in the international arena of trade and development. Concern for ecological degradation, calls for “greening” production, even the
UN “precautionary principle”, are routinely viewed with scorn, perceived as a left-ish ploy against globalisation and economic development or a luxury accessory of the G8. Given that environmental problems cross borders, regardless of political-economic arrangements, and that the benefits of environmental protection follow suit, it is unclear why these issues are often conflated. Many environmental problems are multi-causal, some of which may be related to domestic policy and some may be imported. The point to be made in this section is that environmental concerns are generally overruled by the importance of free trade and economic growth, even though the existing basis for such ruling is biased and incomplete. Eco-labelling, in the attempt to alert the environmentally concerned consumer of biases in the production system by providing fuller information about the goods they consume, stirs controversy at the highest institutional level for multi-lateral trade, the World Trade Organisation (WTO). According to the GATT (General Agreement on Tariffs and Trade) agreements and commitments, as well as rulings on trade disputes, there seems to be a perplexing incompatibility between offering environmentally friendly goods to consumers and free trade. There is vigorous debate between free trade proponents and environmental supporters to determine whether eco-labelling constitutes a non-tariff barrier (NTB) amongst the WTO trading partners. The WTO, and in particular the Committee on Trade and Environment (CTE), see eco-labelling as “one of the most controversial aspects” of their work (www.wto.org).

The green consumer and world trade

Consumer demand for environmentally benign products, or goods that are produced in an environmentally-friendly process, represent a legitimate market segment. Further, consumers, as members of civil society, may demand that producers demonstrate general care and concern for the environment out of moral reason, reflecting personal values or social traditions. Environmental concerns, consumer values, and traditions, however, are rather nebulous qualitative concepts compared to the quantitative importance of commercial trade. Traditionally the quantitative measure has been pursued almost recklessly to the exclusion of qualitative factors, resulting in strong divisions on the value of international free trade. Consumers, as stakeholders in international trade, have a legitimate interest in the structure and process of the trading operations. Vitalis (January 2001) writes “... to suggest that market access should be liberated but consumer concerns kept fenced off squarely behind national borders risks public support for trade liberalisation and confidence in the WTO itself.” Eco-labelling reflects an important change in social attitudes to the environment
and is part of a wider movement towards the use of market based instruments. The social change, however, is not yet accommodated for in existing institutional structures of international trade. The acceptance of eco-labelling – and the controversy it creates – as an environmental policy tool, or as a consumer information tool, is therefore fraught with regulatory restraints and resistance in the international trade arena.

In this chapter, the following issues will be discussed: firstly, a synopsis on the WTO and eco-labelling is presented, secondly, trade-related debates are discussed in the context of environmental labelling, thirdly, risks, possibilities and finally solutions for eco-labelling in international trade are identified.

**WTO and the environment**

The WTO Committee on Trade and Environment (CTE), established in Marrakech April 15th, 1994 has a mandate “to identify the relationship between trade measures and environmental measures in order to promote sustainable development” and “to make appropriate recommendations on whether any modifications of the provisions of the multilateral trading system are required, compatible with the open, equitable and non-discriminatory nature of the system.” (www.wto.org) Further, in the preamble of the WTO Agreement on Technical Barriers to Trade (TBT), it states: “No country should be prevented from taking measures necessary to ensure the quality of its exports for the protection of human, animal or plant life or health, of the environment or for the prevention of deceptive practices ...”. A commitment to sustainable development was reiterated at Doha in 2001. “We are convinced that the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive.” (Doha Ministerial Declaration 2001). It was the first “concerted effort to conform the rules and institutions governing international trade to contemporary understandings of threats to natural resources, human health and environmental quality”. (Ward & Blumenfeld 1994) This does not mean that the committee is a satisfactory solution to environment and trade problems, however it should be acknowledged for its significance in a change in attitude in international trade circles. But the WTO is first and foremost a trade agreement, if one that is at least attempting to modernise its tenets to reflect current ideas and social values, and therefore acts in the interest of promoting uninhibited and predictable trade between the 147 WTO members.

The basic position of the CTE on environment and trade is consistent with the position on trade itself, that is to enhance existing market opportunities through the removal of trade restrictions and distortions such as tariffs, export restrictions, subsidies and non-tariff barriers
to trade. Hence, trade liberalisation leads to economic growth, which in turn leads to environmental improvement. Under globally competitive conditions, trade will lead to the most efficient allocation, and appropriate pricing, of scarce resources. Essentially, trade enhances resource allocation efficiency and leads to optimal market efficiency. Once free and uninhibited trade prevails, environmental efficiency will also prevail. It is a solid Ricardian concept that probably was accurate during the early 1800s when the scale of production was limited by simple mechanics and craftsmanship, and the inputs of production were less mobile than they are today.

The CTE and eco-labelling
In reference to eco-labelling, the CTE recognises that “well designed programmes for eco-labelling can be effective environmental policy instruments, which may be used to foster environmental awareness amongst consumers.” (www.wto.org) This favourable statement however, has not been witnessed in the trade dispute settlement process of the WTO. The most highly cited reference to eco-labelling and the WTO is the dolphin-free tuna case between the USA and Mexico in 1991 and the USA against the Netherlands in 1994. A series of WTO judgements in favour of the plaintiffs – countries objecting to purported “environmental protection” measures as a discriminatory trade barrier - demonstrated that the importance of unrestricted trade between nations supersedes a nation’s right to protect domestic markets based on environment-related criteria. The USA attempted to impose import embargoes for tuna that is caught using purse seines that inadvertently catch and drown dolphins in the fishing process. In 1995, again the US found itself before the Appellate Body and yet again, the panel ruled against the attempt of the Americans to require specific monitoring devices that would protect turtles in the shrimp fishing process. The dolphin-free tuna and turtle-free shrimp cases are now famous – if not popular – precedents of the WTO CTE. The details of these cases are complicated and should not be considered as conscious disregard of the environmental commitment of the WTO, however it did demonstrate that the right of a nation to “protect human, animal or plant life” (GATT Article XX (b) is severely restricted once the issue of trade is involved. To require that imported tuna be fished in a method stipulated by the US constitutes “extra-territoriality”, attempting to extend domestic legislation beyond national borders.

Secondly, the US dolphin-free requirement for tuna does not regulate the product itself (i.e. the tuna) but the production process, or Process and Production Methods - PPM - in WTO jargon. In response to this defeat, an eco-label for “dolphin-safe” tuna was developed and
introduced to the American market. This was accepted by the Appellate Body because the label is voluntary to producers and distributors, and not a prerequisite to market access. The GATT found that the label did not violate TBT rules because it was required by domestic and foreign producers and was aimed to prevent against false advertising. (see WTO.org)

The ruling on the dolphin-free tuna and shrimp-turtle disputes is inconsistent with international environmental commitments and the WTO press correspondent delivering this message to the public is not in an enviable position. The WTO, like any institutional body, is a collection not of facts but of ideas, or in this case the doctrine of international free trade, regulated by a set of agreements and commitments between its members. Not to debate the usefulness of a solid constitution (i.e. the WTO General Agreements on Trade and Tariffs) by which certain systems - political and economic, for example - are regulated and governed, but through increased knowledge and acceptance of change (i.e. deteriorating environmental conditions, systemic correlation between trade and environment, socio-economic developments and progressive attitudes to environmental protection), we can also recognise when the constitution requires adaptation to suit contemporary conditions. The WTO mandate should be representative of the signatory states who constitute its members, and in fact all WTO agreements must be ratified by parliament of its members, indicating individual approval of the collective agreement. Environmental issues, and related institutional phenomena such as environmental labelling, are clearly not a priority in all WTO member states\(^7\), whereas economic development and economic growth are more likely to be the common denominator. Hence, putting environmental issues onto the trade agenda will be a difficult route to forge, with a high risk of succumbing to downward harmonisation of environmental priorities and protection. Further, it is also debated whether an issue such as environmental protection should, in any case, come under the jurisdiction of an organisation that is geared to meet an entirely different objective.

On the one hand, if such a body can succeed in the name of free and unrestricted trade, there should be no limitation to directing fair trade. As Fuller (2002) comments on a global ethics accord within the WTO, "... upholding national laws, respecting societal norms, preserving indigenous cultures and protecting the natural environment are multi-sectoral, multinational and trade-related in character and thus should fall within the purview of the international trade body." Possibly the only impediment to affirmative WTO action in eco-labelling is the mindset on the sanctity trade liberalisation. On the other hand, WTO policies

\(^7\) Not all WTO members participate in the CTE.
fail to acknowledge that the global ecosystem has a finite carrying capacity. There are limits to the economic cycle of resource manipulation, consumption and waste generation. WTO policies and practices also largely ignore some historical disadvantages in trade that the developing world suffers at the hands of many of the same countries that now dominate world trade and the WTO. In this sense, it is said that the WTO has a conflicting agenda and would be overreaching its competence by engaging in environmental policy-making. Further, the WTO does not claim to be the appropriate forum for environmental management and explicitly defers such issues to international agreements or bodies with appropriate expertise. (Deere 1999) Herein lies the problem of international trade and the environment. Separating inextricably bound issues of environment from international trade and commerce indicates the disconnect between the physical and subjective world. Environmental conservation and sustainability can only be achieved through the unification of these seemingly opposing agendas.

Against this uncertain background of the WTO and the environment, we will now look at related issues that pertain directly to eco-labelling.

**International trade and eco-labelling**
The role of international trade poses an interesting dilemma in global society. Liberalised trade enables nations to focus on the production of goods where they have a comparative advantage. An efficient allocation of resources, coupled with liberal trading practices, therefore leads to higher production levels, export of domestic goods, improvement of foreign exchange and the availability of cheaper goods, all of which is often assumed to be synonymous with improved economic welfare. Traditional economic estimates however, as discussed in the previous section chapter, do not include such components as the socio-economic impact of concentrated production relations, sustainability measures, effects on institutional and infrastructural development and environmental impact. “Non-economic impacts to trade have become more, not less, important. So far, the legal culture and institutional framework of the WTO have failed to address the growing gap between trade norms and social need.” (Drache et al 2002)
Environmental labeling: Relevant Legal References in the GATT*

- General Most-Favoured-Nation Treatment, GATT Article I: “any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties”

- GATT Articles I (MFN) and II (Schedules of Concessions) constitute principle of non-discrimination: Regulations must pass the MFN and NT tests regarding trade restrictiveness and must also not be ‘more trade-restrictive than necessary to fulfil a legitimate objective’ such as health, safety or the environment. If other methods of achieving the same goal are introduced, then the eco-label could be a trade barrier.

- General Exceptions, GATT Article XX: “Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

  (b) necessary to protect human, animal or plant life or health
  (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;

- Technical Barriers to Trade Preamble: Recognising that no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries

- TBT Article 2: “Parties shall ensure that technical regulations and standards are not prepared, adopted or applied with a view to creating obstacles to international trade.”

- TBT Article 4.1: “Parties shall take such reasonable measures as may be available to them to ensure that non-governmental bodies within their territories comply with the provisions of Article 2”

- TBT Article 11.1: “Parties shall, if requested, advise other Parties, especially the developing countries, on the preparation of technical regulations.”

- Item 3(b) of CTE - how to deal with eco-labels

  * **there is no explicit reference to eco-labelling within the TBT**

* www.wto.org
The environmental impact of trade is particularly difficult to define. Cheaper goods, for example, may be produced using environmentally inferior technologies compared to what is available in competitor countries. If the environmental costs of production are not internalised in the calculation for comparative advantage, a domestic industry that is highly polluting compared to existing alternatives may develop. This runs the risk of achieving trade goals but at the expense of the environment. International trade and global production relations also lead to increased transportation costs which include an environmental impact. Further, cheaper goods may lead to increased consumption volume and consumption of goods that might otherwise not be available. Increased consumption, per se, is not an indicator of improved standard of living, however it does indicate a higher environmental impact. By providing some environmental information about a product or production practice, the eco-label, has at least some ability to correct a few of the above listed quandaries. Perhaps exactly due to this, the eco-label also has led to some controversy on the international trade scene. The three debates most relevant to eco-labelling and international trade are:

1) Process and production methods
2) Non-discrimination
3) National sovereignty

**Process and production methods**

Process and production methods, or PPMs, are undoubtedly the Achilles heel of eco-labelling and international trade. Typically third party eco-labelling programmes such as the German Blue, the Nordic Swan and Canada’s Environmental Choice, for example, establish certification criteria based on process and production methods and include PPMs in the life-cycle analysis. Hence it is not the product itself that satisfies the certification criteria, but the method in which the good was produced. This leads to troubles with the WTO because it violates the Technical Barrier to Trade Agreement (TBT). The TBT is meant to ensure that technical regulations or standards cannot be used as a disguised measure to protect domestic industries from foreign competitors. “Like products” can be differentiated only by product characteristics and not by intangible product qualities that would include the production process. “WTO rules do not prevent countries from imposing different requirements (including those that relate to labels) on products that have different characteristics. But where the requirements relate to things which have no bearing on the commercial or indeed practical substitutability of the good but to the way in which the good is produced, discrimination is established and may contravene WTO rules.” (Vitalis 2002) The logic behind this stipulation, at least relating to environmental concerns, is that “the
environmental implications of a particular process can vary from place to place, from country to country — for example, whether a particular resource such as water is scarce; or whether a particular location is already heavily polluted and therefore ill-placed to absorb and degrade additional pollution. Another way of expressing this: products are “objective”, processes are “subjective”. (www.wto.org) The WTO promotes “objectivity” in trading schemes in order to ensure transparency and predictability in international trade.

PPMs are subjective because they vary in “environmental appropriateness” according to local conditions. This does not mean that they are irrelevant to the consumer nor should they be ignored in the terms of international trade. “Although the TBT Agreement requires WTO members to avoid using non-product-related PPMs in the design of standards and technical regulations, some Multilateral Trade Agreements recommend their use” such as The Basel Convention, the Convention on Illegal Trade in Endangered Species of Flora and Fauna (CITES), the Montreal Protocol and the Rotterdam Convention on Prior Informed Consent (PIC). (Rotherham 1999:24 )The focus on product and production process seems to be a bit of a red herring that blurs the mission of eco-labelling in providing consumers with environment-related product information. The consumer cannot distinguish between goods based purely on product characteristics and therefore would need the environmental label to signify the relationship of the product to the environment. Since product content is readily available, consumers depend on the eco-label to determine the environmental appropriateness of the PPMs. To bring this forward as a trade issue infringes upon a consumer’s right to understand the production-consumption relationship of their goods. If the eco-label represented a different social issue, for the sake of argument, let’s insert ‘sweatshop’ into the PPM instead of the ‘environment’, would this constitute a NTB? Consumers have a right to information which enables them to differentiate between products based on production and processing characteristics. Through labelling, social concerns and issues which are objectionable to consumers can be identified, and the market can determine the equilibrium demand for goods produced in violation of these social concerns.

Another point concerning PPMs that is worthy of mention is the “rules of origin” harmonisation programme that requires that product origin be “objective, understandable, and predictable”. “Rules of origin” are the criteria used to define where a product was made. They are an essential part of trade rules because a number of policies discriminate between exporting countries: quotas, preferential tariffs, anti-dumping actions, countervailing duty (charged to counter export subsidies) ...” (www.wto.org) As we will see further along, “environmental dumping” is also trade distorting and leads to sub-optimal trading patterns.
The trend toward global sourcing and the "decentralisation of many trans-national corporations, who no longer micro-manage or directly control every aspect of production, but rather delegate responsibilities to subsidiaries by means of sub-contracting" (Piotrowski & Kratz 1999:5) gives multi-national corporations "an excuse for not being able to guarantee or control certain aspects of production". "Labelling places increased emphasis on the chain of custody and traceability from the producer to the consumer in order to pass liability back to producers and to reduce risk to those more directly interacting with consumers." (Clay 2002) In this sense, eco-labelling is consistent with the WTO's own doctrines.

Finally, the controversy over PPMs is being recognised within the WTO itself as a problem that needs clarification and a remedy. "Currently, a major challenge to the TBT Agreement's effectiveness is the increasing use of regulations and standards that are process-based, as opposed to product-based, and not only in the area of the environment. This may require added reflection on the TBT Agreement's rules on mutual recognition and equivalency (i.e. countries recognising each others’ methods and standards) as a means of addressing the problems posed by countries having differing environmental standards." (www.wto.org) The WTO, as an institution, needs to change to reflect the current norms and values that are important to the citizens of the member states.

**Non-discrimination**

In creating a co-operative policy or institutional agreement, a set of regulations or directives will establish activities and interaction between members or signatories of the agreement. The definition, as well as the interpretation, of the regulations will undoubtedly be deemed discriminatory by some stakeholders who are affected by the agreements, whether or not they are members or signatories. The degree of exclusion and therefore level of discrimination of an agreement will decrease as stakeholder involvement increases. The WTO is an organisation deeply committed to non-discrimination amongst its members, as set out is Articles I and II of the GATT. Combined, these articles ensure 1) most-favoured-nation treatment (MFN) among trading partners, that is treating each trading partner equally and 2) national treatment or equal treatment for foreign and domestic goods and services. Non-discrimination is the main principle on which the rules of the multilateral trading system are founded. The principle prevents the abuse of environmental polices and their use as protectionism in disguise. It ensures that national environmental protection policies cannot arbitrarily discriminate between foreign and domestically made products, or between products imported from different trading partners. (Strictly speaking, the policies cannot
discriminate between “like” products, i.e. products that are the same or equivalent.\(^{(www.wto.org)}\)

In making his point that the environmental costs of trade are greatly underestimated, Dunkley (1999) states that free trade proponents support uniform rules for international trade but not uniform rules for production standards, that is creating a “level playing field” for the outputs of goods but not for the inputs of goods, which would include labour and environment for example (Dunkley 1999). Hence the singular pursuit of trade liberalisation discriminates against the potential pursuit of other social goals. Free trade is pursued at the expense of fair trade. It is even contradictory to member states who pursue environmental protectionist measures. Prohibiting eco-labelling, or other forms of environmental communication, discriminates against producers who want to promote a business model that is based on environmental stewardship.

**Reverse subsidisation**

Let’s take the case of a member country A, with a strong industrial environmental programme that requires producers to implement pollution controls and eco-efficiency in the PPM. Local producers will therefore face higher production costs that will result either in a lower profit margin or, conceivably, the price differential could be recovered through the premium of an eco-label. Foreign producers that operate in a country B, where pollution control is not legislated, presumably face a lower cost structure. These goods, when imported to country A, have a cost advantage over domestically produced goods and can potentially distort the market. In the Agreement on Subsidies and Countervailing Measures, Article 17.1 (b) on Provisional Measures refers to an “injury to a domestic industry caused by subsidised imports”. The current understanding of subsidy has a pro-active requirement, that is that the government must do something or provide something to the producers to constitute a subsidy. This might include a transfer of funds or a waiving of financial requirements such as a tax concession. Negligence or heedless administrative policy, such as failure to address environmental issues in production, is not yet considered a form of subsidy or reverse subsidy. However once stronger environmental regulation is enacted at the international level, i.e. when national standards become international norm, a reckless approach to production will represent a form of regulatory concession and hence a subsidy to highly polluting producers. “\(^{[N]}\)ations that fail to enforce global ethics codes - those states that condone or ignore ethical abuses - unfairly subsidise the goods and services produced within their borders and therefore deserve the trade penalties that would result from a global ethics
accord." (Fuller, 2002) The broadening of the WTO definition of non-discrimination will expand to include social and environmental issues.

**National Sovereignty**

International trade agreements are often the bane of environmental policy, whether national or international. The use of market-based instruments to attain social policy goals is increasingly popular. An eco-labelling programme can gear producers and consumers to more environmentally benign production and products as well as determine products – and production processes - that are appropriate for the local market. With the risk of violating the GATT TBT Code of Good Practice, eco-labelling loses its potential for achieving social goals, and particularly environmental goals, through the WTO and international trading practices. A nation is hindered from pursuing a course of environmental stewardship in production relations.

National sovereignty may be directly foiled in four ways. Firstly, a nation’s right to protect its own environment is threatened. Voluntary certification schemes give a country the possibility to create environmental production standards that are best suited to their socio-economic and environmental conditions. A nation cannot address a particular issue such as acid rain when that issue may not be relevant for an exporter from a region with low sulphur dioxide emissions. As concern for trans-boundary and global environmental impact of production has grown, “it has become clear that the WTO restriction on the use of non-product-related PPMs is constraining governments’ ability to act to reduce these impacts... .” (Rotherham 1999) A nation, therefore, cannot restrict imports or only accept certified goods in an effort to curb importation of a particular harmful substance or product.

Secondly, mandatory eco-labelling (i.e. environmentally preferable production standards) for particular goods, or the requirement of a sustainability label for production methods (i.e. fishing and forestry), would constitute a case of “extra-territoriality”, that is when a country attempts to enforce its own domestic laws in another country (Beaulieu & Gaisford 2001). Nations, therefore, cannot establish environmental codes for production of goods to be made available on the domestic market. The ability to restrict goods that are produced contrary to local standards is not possible.

Thirdly, national government lose influence to control the types of products available on the domestic market. As discussed in the section on discrimination, national government lose market influence of non-conforming goods if the low-quality good captures market share away from certified goods. Domestic goods are then not competitive against non-conforming foreign imports. “If non-conforming goods are allowed on the market, consumers who do not
consume them may still be concerned about the aggregate effect. ... The social costs of importing the non-conforming good may well exceed the private costs.” (Beaulieu & Gaisford 2001:18) In any case, it again restricts a nation’s right to protect their consumer markets from undesired products, provide their consumers with full product information and to protect their environment.

Fourthly, nations are restricted in their ability to uphold international environmental agreements. International trade arrangements – effectively commercial agreements – reflect international norms and standards. These should not, in principle, conflict with national standards of a signatory state. The Geneva Convention, for example, protects human rights and is applicable world-wide. Trade ought to be equally consistent in regulating commercial production relations.

These conflicts between international trade and national sovereignty reflect the reigning dominance of trade. Trade and commerce has to date had a higher ranking of value than other “social goals” such as environmental protection. Through the acts of civil society and the prevalence of market-based phenomena such as eco-labelling, the WTO is being forced to reconsider its role and the integration of social goals into its policy. “As the line between national sovereignty and corporate governance continues to fade, voluntary industry-based environmental initiatives are going to become increasingly important.” (Rotherham 1999:38)

A final note is that the WTO is an agreement between sovereign states and not organisations. Therefore local NGO’s are not under the jurisdiction of WTO. Further, eco-labelling is usually voluntary and some would question what relevance this has to an international trade agreement.

Against these key controversies, we will now look first at the potential risks that eco-labelling creates in international trade, then explore possibilities for the same, and finally provide a list of best practices that would reduce the negative potential of certification and enhance the positive trade effects.

**Risks of eco-labelling in the international trade context**

Undeniably, when combined with the dynamic of international trade, eco-labelling certification can lead to undesired effects. Opposition to labelling on the international trade scene comes from many sides. Trade officials and exporters fear loss of competitive position, producers fear certification costs and developing nations fear protectionist eco-imperialism. Grote and Volkgenannt (2002) have discussed many of the main risks below.
**Divides nations along the north-south axis**

Developing countries fear that eco-labelling can pose an unjustified “restrictive business practice” (Barham 97) preventing exports of goods to developed nations under the guise of environmental protection. They risk losing market share when eco-labelling cannot be met due to prohibitive costs, lack of knowledge, awareness and understanding or a lack of technology. Through proper technical assistance and stakeholder involvement, the risks to developing country producers is significantly reduced. The trader of primary products is often responsible for product certification. With international contacts, this again reduces the risk that LDC’s remain on the periphery of the certification process.

The type of labelling programme also seems to determine whether it divides along the north-south axis. The Forest Stewardship Council (FSC), based along sustainability of production, is highly represented in developing countries. “Unlike the diffusion of the general eco-labelling systems, the global diffusion of the FSC label was equally split between countries of the northern and southern hemispheres.” (Kern et al 2001:42)

Eco-labelling can actually “create opportunities and thus increase the international competitiveness of products from developing countries.” (Grote and Volkgenannt, 2002) “In many developing countries ... agricultural products have often traditionally been grown organic because of a lack of fertiliser and chemicals, but they have not necessarily been certified as such.” (Grote 2002) Deere notes that “given that trade in these products is destined for industrial country markets, eco-labelling schemes that focus on consumers in industrial country markets have the potential to encourage more sustainable international trade flows.” (Deere 1999) Further, “Eco-labelled products can provide LDC’s and indeed all countries with a market for higher priced goods that increases revenues which in turn could be ploughed back into sustainable development initiatives.” (Bach 1998) Eco-labelling offers a pattern of development which, while remaining linear, allows a leapfrog of industrial production from high pollutants/low efficiency to greater ecological production efficiency.

**Technology lock-in**

Technologies and production processes that are required for label certification can potentially ignore environmentally friendly alternatives that are available in both developed and developing countries. In anticipation of continued regulation, producers may remain with certain technology and refrain from seeking superior alternatives for fear of failing to meet certification criteria. Certification standards may be established on an outdated technology
base. With criteria review every three years, valuable technological developments that increase eco-efficiency in production represent a lost opportunity. This risk is particular high within the trade context because labelling schemes tend to have a national or regional bias. Importing technology for domestic producers is a difficult policy to implement. Faster review cycles and stakeholder involvement can minimise the risk of technology lock-in.

**Inverted standards**
The standards established in the host country will typically focus on technology that is available and appropriate within the region. The standards may be unavailable, unsuitable or prohibitively expensive for trading partners. Foreign producers exporting to the region may face a set of criteria which is entirely unsuitable in their local conditions. The criteria for papers and textiles in the EU Flower programme require a high percentage of recycled paper. No respective technology exists in many developing nations. “As a result, in order to qualify for the scheme, developing countries need to import recycled paper.” (Grote and Volkgenannt, 2002) Recognising that the environmental impact of production is not universally the same is part of the mutual recognition programme. This risk is the result of setting criteria for local producers without consulting foreign producers. Again, active stakeholder involvement, including foreign producers and exporters, can minimise the perverse effect environmental labelling may cause to foreign producers.

**Downward harmonisation**
When a national policy or standard is brought onto the international trade circuit, there is great fear that the standards will be “watered down” in an attempt to meet with the least resistance. Hence the “the overall goal is to provide market-led incentives to raise standards and outcomes, not to find ways to legitimise current practices.” (Deere 1999) “In contrast to the frequent assumption that policy harmonisation takes place at the level of the lowest common denominator, convergence in environmental policy over the past 30 years has generally been guided by the developmental status achieved in the most advanced countries.” (Kern, Jörgens & Jänicke 2001)
Possibilities of eco-labelling in the international trade context

“... international economic integration and growth reinforce the need for sound environmental policies at the national and international level. International co-operation is particularly important in addressing trans-boundary and global environmental challenges beyond the control of any individual nation. This would be true even if nations did not trade with one another. “

www.wto.org

Consumption and trade
Western consumers are offered - and likely now demand - a range of goods that require sophisticated logistics and production methods and relations, a supply of cheap natural resources, often exploitation of developing economies (which may involve inferior labour conditions and human rights abuses), and failure to internalise negative environmental externalities in the production cycle. Social deficits arise from a “failure of government to address the harmful externalities that are produced as a by-product of the global trading system.” (Drache et al 2002) Politically biased arrangements promote the current global status quo, and dually limit economic development in disadvantaged economies, while preserving the standard of living and high levels of consumption in industrialised economies. Non-trade legislation is subordinated to international agreements and social issues, including environmental protection and human rights, are sacrificed on the global free trade agenda. The entire system of consumption in the West is hence dependent on a free trade model which itself is an ensemble of biases and inconsistent standards.

Voluntarism and civil society
Disappointed with the national and supra-national institutions that aim at environmental protectionism, NGO’s and civil society are taking up action at the international level. As was demonstrated in the dolphin-tuna case, the WTO ruled against an American import restriction on tuna that was caught with nets that risked dolphins, however accepted the voluntary “dolphin-safe” eco-label. Voluntary schemes may be covered by the TBT, but only if they are considered to be standards, and if they are of governmental character. In theory, this would mean that only mandatory government run programmes would violate the TBT. In reality, the TBT also states that governments “shall take such reasonable measures as may be available to them to ensure that ... non-governmental standardising bodies ... accept and comply with the Code of Good Practice for the Preparation, Adoption and Application of Standards in...
An excerpt from a document discussing the implications of eco-labelling within the context of international trade and sustainability. It highlights the potential of eco-labelling to enhance the terms of trade for developing countries, improve their competitiveness, and contribute to more equality in environmental and social conditions. The text outlines the need for international co-ordination and consensus to ensure that eco-labelling schemes contribute to sustainability and avoid being non-tariff barriers in violation of WTO rules. It also mentions the importance of standardisation and harmonisation of environmental labelling schemes to achieve equivalence and mutual recognition amongst different national schemes. The document argues for a widespread commitment to the standardisation of methodologies and harmonisation of programmes to support sustainable and equitable trade practices.
possible to observe a marked tendency towards convergence of programmes.” (Kern et al 2001)

**International co-ordination**
The Global Eco-labelling Network (GEN) has made the most progress toward establishing a globally co-ordinated effort. GEN is a non-profit association of third-party, environmental performance labelling organisations founded in 1994 to “improve, promote, and develop the eco-labelling of products and services.” (www.gen.gr.jp) GEN promotes technical assistance, common standards amongst members and, perhaps most importantly, represents a common voice of eco-labelling programmes to large international organisation such as the WTO, UNEP, OECD, FAO and ISO. At the last Annual General Meeting in November 2003, a proposal was made to establish “GENICES”, the GEN Internationally Co-ordinated Eco-labelling System\(^8\) to establish “accreditation, common criteria and possibly a harmonised logo to build membership capacity and efficiency, reduce unnecessary barriers to trade, and attract “buy-in” from more enterprises that produce and provide green products and services”. The goals of GENICES\(^9\) include four main steps:

1) information exchange  
2) mutual confidence  
3) agreement on mutual recognition of testing and auditing  
4) mutual recognition of criteria and certification

Essentially the goal is higher co-ordination between eco-labelling programmes.

A second NGO that seeks international co-ordination in labelling is the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance. The ISEAL Alliance is an association of “leading international standard-setting, certification and accreditation organisations that focus on social and environmental issues.” (www.isealalliance.org) It is a co-ordinated effort between the private sector and civil society. A proposed categorisation for criteria development in labelling could include a three class system. ‘Class 1’ could include labels for niche products that are traded locally. ‘Class 2’ would include broader labelling for goods with a wider market. ‘Class 3’ would include goods that are globally traded. As a product moves up from local trade to international trade, the criteria for certification would also change from national criteria to common criteria to harmonised global criteria. A third organisation working toward international harmonisation is the International Standards

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\(^8\) This should not be confused with a universal or international eco-labelling programme.  
\(^9\) Based on conversations with John Polak, then GEN Chair, in November 2003.
Organisation (ISO). The mission of ISO is to promote the development of standardisation in the world with a view to facilitating the international exchange of goods and services, and to develop co-ordination in the spheres of science and technology and economic activity (Deere 1997). ISO creates guidelines for environmental management however it does not set minimum or maximum standards. Primarily it provides a uniform method of measurement. The ISO 14020 specifically sets standards for the design and implementation of different eco-labelling programmes. Again, it provides a functioning framework for the programme however it does not provide criteria for certification.

Eco-Labelling: Relevant ISO Documents

- ISO 14020 Environmental Labels and Declarations - General Principles
- ISO 14021 Environmental Labels and Declarations - Self-Declaration Environmental Claims
- ISO 14024 Environmental Labels and Declarations - Environmental Labelling Type I - Guiding Principles and Procedures
- ISO/TR 14025 Environmental Labels and Declarations - Environmental Labelling Type III - Guiding Principles And Procedures

Between these three diverse institutions, the trend toward international co-ordination for labelling becomes evident.

“By promoting the use of international standards, WTO trade law encourages the harmonisation of national standards and ensures that trade facilitation, and not trade restriction, is the guiding intent behind national standardisation and technical regulation. However, it also restricts the freedom of countries to develop whatever kinds of standards and technical regulations they would like by placing the burden of proof on the country that diverges from the international standard.” (Rotherham 1999) This burden of proof seriously discourages front-runner countries who would like to be environmental leaders but lack the resources to push their policy through the WTO trade machinery. A system with internationally recognised and accepted standards that are regionally adaptable would prove useful. “With good design, environmental labelling and certification schemes can facilitate trade and strengthen the link between profitability and corporate environmental responsibility. They may also provide a mechanism for countries to limit the environmental impacts of international trade without resorting to protectionist measures.” (Rotherham 1999)
Conclusion
The preamble of the Agreement establishing the World Trade Organisation (WTO) states:

“relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development”.

"Environmental labelling is a legal way for a WTO member country to differentiate products produced in an environmentally sound way from products that are not, and can remove fear of downward harmonisation." (Bach 1998:11) "Under the right conditions and with a careful eye to some basic WTO principles, they could be a powerful mechanism for both trade and environment reasons." (Vitalis Dec.6, 2002:10)

The case for WTO involvement in eco-labelling, therefore, can be summarised by the following five points:

- Develops an international standard
- International standards encourage fair trade (level playing field)
- Integration of economy and ecology leading to sustainability (why should WTO continue to operate contrary to UN mandates ... and contrary to its own?)
- Harmonising schemes will dismantle possible barrier to trade effect
- WTO provides market-based solutions, seeking eco-efficiency and opportunity - without the economic incentive, environmental protection initiatives such as eco-labelling are bound to have minimal impact and remain in the periphery of international trade
Eco-labelling the environment

Introduction
Current natural resource extraction, manipulation, consumption and disposal are beyond sustainable levels within the developed world, economically - and possibly socially - crippling in developing regions and threatening to diverse flora and fauna world-wide. Advanced technology, international trade and the exercise of comparative advantage, efficient logistics, and consumer culture are but a few of the reasons explaining current production and consumption patterns in developed nations. In supplying the (mainly) Western consumer with a steady and varied supply of cheap - or luxury - goods, the environmental externalities and costs of production, logistics, consumption and disposal have been consistently - even mysteriously - ignored. Eco-labelling is one market-based option to draw consumer and producer attention to some imperative environmental issues.

The ostensible objective of eco-labelling, beyond the social and market factors of increased consumer awareness and behavioural change, is environmental protection. Eco-labelling aims to reduce the environmental impact of the production - consumption cycle. A pertinent question is of course what effect an eco-label can have on consumers and producers, presumably the dual evils to the environment? In this section, we look at how the environmental impact of eco-labelling is measured. The indirect impact of eco-labelling is shown to be more significant than the direct impact.

Quantifying research

Facts are few ... but look promising
One consensus found amongst researchers that is repeated often in eco-labelling literature is that there is a paucity of empirical research. „Hard data relating to the actual environmental impact of eco-labelling programmes is lacking." (Deere 1999) Also, with “a majority of national eco-labelling programmes having only been established in the last decade, efforts to measure effectiveness are incomplete.” (GEN 1999) Despite the apparent gap in research, there is still a fair bit of optimism concerning the environmental impact of eco-labelling. Typical endorsements include „... the German Blue Angel label reduction in hazardous emissions and energy consumption has been quantified as being significant." (Müller 2002) or “There is evidence that labelling has been very successful in meeting environmental objectives in some cases.” (Dawkins 1996) In a 1995 study of the Nordic Swan, more
conclusive quantitative numbers were given such as “11% reduction in sulphur emissions, 21% COD emissions, 51% AOX emissions reduction arising from the production of fine paper” (Reinhard et al 1999) resulting from the Swan certification criteria in production, although these figures are “only indicative” of the potential impact. An SSNC study found that amounts of chemicals used for washing clothes and dishes decreased by 15,000 tons between 1996 – 98. In any case, caution should be exercised with the enthusiasm these reports are delivered. Morris (1997) has shown that the effects of eco-labelling 1) cannot be accurately measured and 2) if measurable, do not reflect many other factors affecting the correlation between eco-labelling and improved environmental quality. In the 1999 Evaluation of the Environmental Effects of the Swan, it was also stated: “Quantification of environmental effects of eco-labelling is problematic, as a range of other policy instruments and factors also influence the development.” (Reinhard et al 1999:14). Tabulating the environmental impact of eco-labelling, therefore, has proven to be more of an art than a science.

Defining impact
The most obvious attempt to define the environmental effect of eco-labelling would be to calculate the difference between the environmental burden that results from the implementation of the eco-label policy compared to conditions without certification. Conveniently that might include fewer resource inputs to production, decreased effluence during the process and production phases, and reduced impact during production, consumption, use and disposal. Unfortunately for the eco-labelling cause, the delineation lines are not so clear nor are the calculations so linear. Even if quantification were possible, a straight calculation is not possible. Harrison (1999:32) offers “Rigorous measurement of the environmental benefits of eco-labels would require data on the environmental burden posed by different products throughout their life cycle, and analysis of the impact of an eco-label on the market share of the labelled and unlabelled products, controlling for other factors, such as manufacturers’ own marketing strategies, that might cause concurrent changes in consumption patterns.” Deere adds, “In principle, the environmental impact of eco-labelling depends on the relevance and significance of the criteria as well as the market share of the eco-labelled products, which in turn depends on consumer preferences for eco-labelled products and the responsiveness of producers and suppliers.” (Deere 1999) Similar to our experience calculating the economic impact of eco-labelling, we have a series of variables that fluctuate according to a changing set of conditions. It cannot be conclusively determined when this data set is relevant nor can the net impact be calculated. The number of variables
to consider is intimidating, particularly for voluntary labelling programmes where the cost factor can be the ultimate determinant in the success or failure of the eco-labelling scheme.

Due to the technical and economic complexity of conducting proper life-cycle evaluations, and determining the environmental impact for each product and within each product group, more emphasis has been given to less scientific variables that indicate the potential of environmental impact of eco-labelling. Figures for consumer awareness (and therefore assumed buyer action), producer take-up or number of licences issued, number of product groups, and market share of eco-labelled goods are easier to determine and more readily available.

Consumers, producers and programmes
The three groups of actors who influence the environmental impact of eco-labelling are the producers, the consumers and the labelling programme organisation. Each party contributes to the environmental effectiveness of the programme however it would be awkward to quantify or even rank their influence.

In the case of producers, changes in the PPM may be due to certification requirements as well as other industry changes, including new technologies, changes in the regulatory environment (i.e. traditional regulations) or even a change in supply chain arrangement. At the same time, consumers may change their buying behaviour from non-certified to certified goods, thereby impacting the environmental aim of the label, however a myriad of other determinants such as sale promotions, availability of goods, convenience and point-of-sale incentives may also sway consumers toward certified products. Finally, the labelling programme itself, and how it is structured, will greatly determine the relevance of product groups and the possible degree of environmental impact.

Within and across these three broad groups, we find an assortment of variables that will also have an impact on the environmental effect of an eco-label.

LCA
A scientific life-cycle analysis includes two components. Firstly, the product life-cycle analysis includes an environmental impact assessment for the following stages:

- Pre-production
- Production
- Packaging and distribution
- Utilisation
- Disposal
Secondly, the product is assessed according to its impact on the following environmental fields:

- Waste relevance
- Noise
- Water contamination
- Effects on eco-system
- Energy consumption
- Natural resource consumption
- Soil pollution

Life-cycle analysis (LCA) criteria is often based on technical and financial feasibility and not necessarily on environmentally based goals. Therefore solutions developed are to problems that are readily solvable. It may ignore more pressing environmental aspects of production for which there is either no known technical solution or no cost-favourable alternative to existing methods.

An additional noteworthy point on the environmental impact of eco-labelling concerns an area that is often ignored in eco-labelling management. Often the most significant environmental impact of a product occurs during the use and disposal phase of the product life-cycle. Currently only product and production are considered. For eco-labels to be “environmentally efficient”, the use phase must also be included in the certification process. There is, of course, a trade-off between “high ambitions and the simplicity of the scheme”. If criteria for certification are considered excessive by producers, or if costs are prohibitive, they will not apply for licensing. Further, when the stringency of criteria is increased, typically every three years, the programme may lose licensees who drop out of the programme rather than continue upgrading environmental performance in production.

**Product groups**

The possibility to achieve large direct environmental effects is limited by the choice of product groups for labelling. Not all environmental problems lend themselves well to eco-labelling input. The portfolio choice can have a tremendous impact on the environmental effects of the programme. For example, many schemes tend to concentrate on high volume/low impact product groups such as paper or washing powder. These are goods where the individual impact is low but the collective impact is high. Alternately, low volume/high impact goods such as a car or jet ski – often referred to as “black goods” due to their inherently anti-environmental character – are not frequently listed in eco-labelling product groups. Due to both technical and political restrictions, product areas associated with high relative environmental impact are often not included in the labelling programme.
Transportation and food, for example, are two areas of consumption with the highest environmental impact. “The Swan’s potential to directly influence the total environmental impact in society is found to be limited by the fact that the label does not cover environmentally significant areas such as transportation and foodstuffs”. (Reinhard et al 1999:14) The most environmentally relevant consumer areas are housing and building, food, transportation, clothing, washing. (Hansen 2001) Without a concentrated focus on these areas of consumption, eco-labelling will have a marginal environmental impact.

Industry commitment
The choice of product groups will influence and be influenced by industry commitment to the scheme, without which the eco-label has limited market chance, and therefore limited environmental impact. In some instances, eco-labelling has led to a significant behavioural change in producers, strongly encouraging them to modify production, however it should be remembered that most eco-labelling schemes are voluntary. Industry boycotts of eco-labels are not unknown. This is further influenced by the availability and cost of alternative eco-efficient technology. Hence, we have considerable technical, economic and political influence in determining the environmental impact of an eco-labelling scheme.

Programme policy and politics
The environmental ambition of an eco-labelling programme tends to depend heavily on the political situation in which it was conceived and is supported. In the case of national initiatives, the commitment of the government to environmental problems, and the consistency with other environmental policies, will help or hinder the eco-labelling programme to set and achieve high environmental goals. In a public private initiative such as the Forest Stewardship Council or the Marine Stewardship Council, again the commitment of the hierarchy will benefit the environmental label itself and determine the effectiveness with which environmental ambition is achieved.

The time on the market will also greatly determine how effectively the programme is operating, in turn influencing the environmental impact in reducing the ecological burden of production and consumption.

Finally, it should also be mentioned that an environmental labelling programme is restricted as a voluntary environmental policy in terms of the reach to stakeholders. The programme itself must maintain a strict code of conduct that is morally and politically correct. Producers who contravene local environmental regulations, for example, are obviously a high target for considerable reduction in environmental impact, but due to their activities outside the
legislative realm, eco-labelling programmes cannot integrate them into their mission. Also, if an eco-labelling certification process fails to meet the environmental targets set, the programme will be discontinued rather than revised for better effectiveness.

It is at best difficult, if not impossible, to differentiate these various factors of influence on producers and consumers to determine how eco-labelling can be measured in terms of environmental effectiveness. The leaders in environmental labelling concluded in the review of the Nordic Swan that “It should be recognised that the environmental effects of eco-labelling cannot be determined with a high degree of certainty.” (Reinhard et al 1999) The reason for prevailing optimism, however, is the producer willingness to change production processes to meet certification requirements. There is also a bit of serendipity in making changes to meet environmental goals. Reinhard et al (1995:55) found that when applying for the eco-label license, “print shops invested in combined water treatment and mixer equipment for new fixer solvents. These investments resulted in decreased water consumption even though this is not a demand in the criteria for printed matter.” Hence the environmental impact of the eco-label, although an indirect benefit, is actually greater than anticipated. “The indirect effects of the Swan eco-label were believed to be a greater source of environmental benefits that the direct effects ... ” (Thidell & Edlund 2001:109) Table 4 shows an overview of the factors that influence the environmental impact of eco-labelling as well as the environmental effects. Many of the indirect benefits fall in areas that represent the social context of eco-labelling, something that will prove to be important later in this paper.
Table 4

<table>
<thead>
<tr>
<th>Factors Influencing the Environmental Impact of Eco-labelling</th>
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<tr>
<td><strong>Production Influence</strong></td>
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<td>Direct influences</td>
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<tr>
<td>Indirect influences</td>
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The “indirect effects of a label may operate through the market and through public policy responses. In many case these second and third round effects may be greater than the direct effects of a label and may be achieved through labels whose headline indicators appear to signal failure.” (EC 1998)

Psychology of eco-labelling and environmental impact

It is easy to point out the inherent weakness in the philosophy of eco-labelling. Eco-labelling a paper kitchen towel, for example, sends a conflicting message to the potential green consumer. Promoting sustainable consumption patterns - avoiding the use of paper towels and encouraging the use of re-usable dish towels, for example - would lend a more consistent theme to the eco-labelling initiative. The environmental impact is therefore reduced to the less of all available evils in the case of paper towels.

A second psychological component to eco-labelling is the risk of guilt-free consumption. An eco-label indicating environmental preference can be falsely understood and interpreted as environmentally benign, hence edging consumers to higher consumption levels than would be the case in the absence of a label. The consumers’ conscience is at ease and the net environmental impact of consumption may be a higher absolute impact.

Another related risk of is the “transfer” of the environmental burden. Again, with a clear consumption conscience that the eco-label may convey, consumers may transfer their
“ecological savings” accrued through labelled purchases to other areas with equal or higher environmental impact. Producers may also fall into this trap if they expand their line of production and increase productions range to meet varied consumers tastes (i.e. having a “green line”).

In the more positive sense, environmental labelling may have spillover effects in other consumers areas that would reduce the environmental impact of consumption. By allowing, and even encouraging, the consumer to exercise their desire to consume according to environmental principles, it acts as a positive reinforcement that may spill over into other consumption patterns as well as other consumers. The power of “keeping up with the Joneses”, even in an environmentally friendly sense, could prove a useful market tool in the aim toward sustainable consumption.

Whether positive or negative, there is a strong psychological component to consumer behaviour and the consumers’ response to eco-labelling. This will indirectly affect the net environmental impact of eco-labelling.

**Conclusion**

The modern production - consumption cycle has led to new lifestyle possibilities that are environmentally unsustainable. Based on this same production - consumption cycle, eco-labelling offers a new lifestyle possibility with a reduced environmental burden. Optimism and enthusiasm about eco-labelling prevails despite the lack of quantitative evidence which would support positive attitudes. Perhaps because measuring the environmental impact of eco-labelling is difficult, there seems to be a collective agreement that eco-labelling works nonetheless. The general consensus is that the indirect effects of eco-labelling on the environment are greater than the direct effects. In Graphic 7, we see the “information cycle” that results from the initiation of an eco-label. Firstly, certification criteria surpass regulatory standards, indicating the first incremental benefit. Secondly, via eco-label communication, consumer awareness of environmental labels and corresponding environmental issues increases. Voting consumer preference on the marketplace, consumers’ positive response influences producers to seek eco-labelling and integrate certification standards into production processes, thereby strengthening the programme. Once a strong eco-label scheme is established, regulatory standards will increase. This will lead the eco-labelling programme to find further environmental improvements that surpass regulation, and the cycle of indirect environmental benefits begins again.
The effectiveness of reducing the environmental burden of the production-consumption cycle through the implementation of an eco-labelling scheme is determined by producers, consumers and the labelling policy programme itself. While the direct impact is not possible to quantify in any realistic detailed way, the indirect impact – which is also not possible to accurately detail – seems to be more significant. Hence the changing of environmental attitudes and the producer-consumer landscape leads to decreased environmental impact. Eco-labelling alone may lure consumers into a false sense of consumption, and therefore should be combined with other policy initiatives. Both consumer and producer response to eco-labelling must be considered together with total behaviour to determine the real environmental impact.

In attempting to determine the environmental impact of eco-labelling, some critical elements of policy design become evident. To enhance the potential of eco-labelling to reach optimal environmental impact, the following policy considerations should be integrated into programme design:

1. LCA must include not only product and PPMs but also user phase
2. Product groups should be strategically selected for relevance and include high impact goods
3. Producers have to be capable of and motivated to achieving certification
4. Policy should not be restricted to issues that are readily solvable and technically feasible
5. Indirect benefits should be optimised through policy co-ordination

“Due to difficulties of measuring behavioural and especially concrete effectiveness of a labelling programme, most of the evaluations of labelling programmes (environmental as well as non-environmental) have in a qualitative manner dealt with assessing the potential effectiveness or the change in consumer awareness and acceptance.” (Reinhard et al 1999) Although quantification of the environmental impact of eco-labelling is rather nebulous, policy-makers are nonetheless enthusiastic. It is accepted that the indirect impact is believed to be the greatest impact of eco-labelling.
**Consumers and eco-labelling**

In the section on international trade, it was shown that the tiny eco-label attracts a great deal of attention at the highest institutional level, and causes the occasional uproar. In this section, we scale down the perspective and discuss the effect of eco-labelling within the consumers’ world.

Consumers in the West generally believe themselves to be protected from environmentally damaging and unhealthy products, and that unsafe products and materials have been legislated out of existence. The government labels goods that are a risk to personal health (i.e. cigarettes), thereby implying that goods that do not have a label are safe. Further, and perhaps most relevant for eco-labelling, consumers have accepted that certain products – ivory and to a certain extent fur, for example – lie outside the realm of moral consumption possibility. The association with animals, particularly endangered species and often the suffering of these animals, has been enough to convince (most) consumers that the purchase of such products is “wrong”. Ivory, fur and rainforest timber have incorporated a moral meaning in society, and can elicit strong emotional reactions from consumers and protectionist groups.

Environmental labelling affects consumers in two contradictory ways. On the one hand, certified goods may lead to consumer empowerment, consumers can better communicate their relationship to the natural world and the global village, and consumer utility increases. On the other hand, certification may lead to suspicion about corporate environmentalism and label fatigue, as well as frustrated environmental ambition and the continuation, or even encouragement, of unsustainable consumption styles.

**Consumer behaviour**

Consumer behaviour is based on a combination of individual observation and experience, and collective communication and dissemination of information within a social market structure. Graphic 8 indicates the multifarious influences on environmental buying decisions. The ranking and weighting of each factor will vary according to a consumer’s purchase paradigm. Indeed, many of these influences on the decision-making process can be contradictory.
The introduction of an eco-label as an additional piece of information for the consumer to process is therefore set in a highly competitive informational setting. Further, it has been repeatedly found that, despite environmental information, personal environmentalism, and the presence of the eco-label, consumers ignore these issues (see Hansen and Schrader 2001, Grankvist 2002). Even for consumers who claim environmental awareness, commitment to sustainable consumption and willingness to pay for environmentally preferable goods fall into what Wimer (in Schrader 2001) calls a “Verhaltenslücke” or “behavioural gap”. This contradiction in behaviour is easy to imagine when a factor of time or convenience is an important determinant of consumer behaviour. Further, Grote (2002) points out that for around 40% of consumers, the environmental friendliness of a product will never be a factor in their purchasing decisions, hence the existence of an eco-label, for example, may be recognised as an environmental indicator but will be ignored as any sort of...
basis for purchase criteria. Björner et al (2002) found that information may have a potentially positive effect on the environmental commitment of individuals, while a fiscal incentive runs the risk of crowding out pro-environmental motivation. The eco-label combines both informational and fiscal factors, hence the financial burden of the price premium may negate the positive effect of increased information that might otherwise lead to environmentally conscious buying behaviour. Hence, we are narrowing down to a highly selective and fluidly defined consumer group who, despite the thorny filtering process, commit to eco-labelled goods.

The effect or intensity of effect of the eco-label will not be uniform across consumers. “The effectiveness of an environmental label ultimately depends on the extent to which consumers perceive, recognise and act on the information it conveys.” (Piotrowski & Kratzer 1999) In Graphic 9, we see that an eco-label may affect few consumers, and of those, the affect, both direct and indirect, will be small. This group would be in quadrant 1 on the graphic. Ideally, an eco-label will have a quadrant 4 effect, that is that many consumers will respond positively to the label in both practice and spirit. Some labels, particularly social labels that indicate emotionally charged issues or violations of social norms – such as child-free labour – may have a high impact on consumers however it may not reach the masses. A label on laundry detergent, on the other hand, may reach many consumers but not promote other behavioural change or deeper commitment to environmental protection.

**Graphic 9**

*Eco-labelling impact – 4 Quadrants* 

* based on ideas in EC 1998
Now let us look at the observable behavioural patterns or tendencies of consumers in response to eco-labelling.

**Increasing utility**
Without labelling, purchasing decisions are made without full information (i.e. negative environmental externalities are unknown). Without this information, the consumer is unable to seek maximum utility or make a rational choice. Eco-labels are a potentially attractive way of simultaneously informing consumers about the environmental impact of their purchasing decisions and communicating both the economic and social or ethical meaning of goods. Despite the frequent critique by economists concerning the economic function of the eco-label, there remains a value to consumers. Consumers cannot demand what they are not aware of, so the function of eco-labelling is to provide information on which to base demand decisions. It reveals that their purchasing decision is an ecologically friendly one, and the utility of the purchase increases. This has a direct positive effect on consumer behaviour while indirectly encouraging more environmentally benign goods on the market. As discussed in the section on the economics of eco-labelling, increased utility can arise from increased customer satisfaction from the purchase of environmentally preferable goods, and the reduction of “moral hazard”. Taken a step further, increased utility can lead not just to consumer satisfaction, but to consumer empowerment.

**Empowerment**
Deere (1999) argues that consumers have a right to get information about products offered on the market that is relevant to their values and preferences, particularly pertaining to product safety or impacts on health and the environment. With labelled information on the environmental, or more recently social, impact of products and production processes, consumers can choose to align and support firms which operate according to environmentally sustainable practices. It provides the consumer with fuller information, and thereby the right to choose products with less environmental impact. The market implications are far-reaching. The consumer is telling the producer not only what should be produced but how to produce it. It returns to them their democratic right to decision-making, something which global production and trade relations have badly distorted (Klein 2000). Further, as disposable income rises, consumers can afford to include moral factors into the consumption decision. Idealism becomes part of their consumption expression. In sum, the presence of an
eco-label on goods and services empowers the consumer to be more specific in the expression of demand preferences, to demonstrate their support – or boycott – of environmentally conscious producers, and to encourage producer behaviour in a direction that conforms with consumer values and principles concerning the environment.

Consumption as communication
In „The World ofGoods“ (1978), Mary Douglas states that „... the overriding objective as a consumer ... is a concern for information about the changing cultural scene. Goods reflect personal identity and continuous consumption is the attempt to define oneself through ownership of new technologies and consumer goods.” This motive to consume may also be the key to sustainable consumption. Miller (1995:17) writes that “consumption provides the only arena left to us through which we might potentially forge a relationship with the world.” If we accept that consumption is communication, then the eco-label is changing the dialogue. As part of the “cultural scene”, environmental labels speak of the value of environmental protection, respect for nature, and a more holistic approach to the production-consumption cycle. The purchase of certified goods may represent, at least for some, even a rejection of consumer led identity or a down-scaling of equating consumption with personal identity or worth. It may also speak of a solidarity with global citizens. The supermarket or shopping mall is the main point of contact between the global village and Western consumers. Another aspect therefore may be defining one’s self through consuming eco-labelled goods, thereby expressing identity and personal relationship to the natural world. “One of the most important ‘benefits’ to consumers of buying labelled products is the associated positive feelings, self-expression and membership in a particular social group. This is what we call the ‘mirror’ effect of labels and it co-exists with the informational (or window) aspects of labels.” (EC 1998) Hence, an undercurrent in the cultural scene is a re-defining of the relationship between consumption and identity.

Label fatigue
Type I third party independent LCA based environmental labels, the main focus of this paper, are not alone on the market. Self-declarations, Type III environmental product declarations, social labelling, environmental management reporting, green marketing and greenwash co-exist and compete for consumer attention, producer take-up and overall credibility. The “green marketing” trend that began in earnest in the 1980’s has led to weary consumers suspicious of corporate environmentalism and sceptical about environmental claims in general, and eco-labelling in particular. Consumers have a right to be sceptical because
company’s have abused “environmental marketing”. The entire environmental labelling movement has suffered both internally, as demonstrated by competition between labels, and externally, by lost consumer confidence.

Guerra states that “Confidence in labels is a problem of culture and law enforcement ...”. (Guerra 2000) The lack of regulation and corporate ethic in spewing out a variety of spurious environmental claims has damaged the essence of eco-labelling and environmentalism in consumption. Consumers are confused over competing claims or conflicting labels and this ultimately leads to label fatigue. Professional marketing organisations, who focus on regulating environmental claims, marketing legislation and international co-operation through GEN and ISO are slowly repairing the damage that has been done within this movement.

**Disillusionment**

Increasing awareness about environmental problems is critical in initiating change, yet awareness and understanding the significance of the eco-label are no guarantee for success (Nuij 2003, Grankvist 2002). One explanation may be that consumers receive too much, and often contradictory, messaging and information concerning environmental and health risks. Excessive information and warnings lead to a feeling of being overwhelmed and feeling helpless to enact change. Typically consumers with limited time and resources will concentrate first on issues that relate directly to their person and immediate surrounding. Therefore a priority may be set on issues of health, while environment takes a lower priority.

A second explanation for the disillusionment of consumers is that they are frustrated with the apparent lack of consequences of their actions. Consumers may become frustrated because they paid more for their goods but there is no noticeable difference in environmental quality. The lack of reward – i.e. environmental purity - leads to frustration and eventually disillusionment. Consumers’ lack of understanding about environmental issues may lead to exaggerated expectations about the impact of buying certified goods. There is also the demotivating fact that, if few others are buying eco-labelled goods, why should I?

**The backfire**

Society at large is now buying on borrowed resources and consuming at unsustainable levels due to the offer of endless purchase possibilities. An eco-label serves the purpose of reassuring the consumer that their buying choice is, at least from an environmental perspective, the right one. Eco-labelling, while adding a dose of reality to these choices, eases the conscience of an otherwise would-be green consumer. It does not encourage reduced or sustainable consumption. It is clear that changes in consumer behaviour are a
necessary complement to improvements in resource use to ensure that the environmental benefits from cleaner production processes and the development of cleaner products are not outweighed by increased consumption. (OECD 2000) Current levels of consumption are based not just on Western-style consumer greed but also on institutionalised systems which give the consumer a false sense of consumption possibilities.

An European Commission study, “Social Labels: Tools for Ethical Trade” (EC 1998), states that concern for safe goods, human rights for workers and environmental protection are not always translated into purchasing choices due to:

- Lack of knowledge about products
- Demands in terms of time and effort to find out information on products
- Feeling that individual consumers cannot make a difference. (EC 1998)

It may be the case that the environmentally conscious consumer is actually encouraged to continue unsustainable consumption patterns, and that guilt-free. The tendency for consumers to continue unsustainable consumption patterns, based on the belief that they are ‘green consumers’ is an unfortunate risk of eco-labelling programmes. This affects both the ecologically aware as well as the environmentally ignorant. Further, Grankvist (2002) found that performing environmentally friendly behaviour in one area “seemed to have a negative impact on the feeling of obligation to do other things.” Hence a consumer who buys only certified paper and cleaning products, for example, may shamelessly drive a large fuel guzzling car, and that short distances, with the feeling that he has “done his bit” for environmental protection.

**Conclusion**

The consumer is not in an easy position. On the one hand, it is the consumer who, through consumption, is responsible for environmental degradation, and therefore the consumer is the only one who can achieve sustainable consumption. On the other hand, a lack of, or conflicting, information and an inconsistent institutional set-up, may lead the consumer unknowingly down a path of unsustainable consumption. The eco-label empowers the consumer in expressing environmental preferences, however it does not guarantee a consistent message.
Producers and eco-labelling

Global labour and environmental standards should be regulated by laws and governments – not by a consortium of trans-national corporations and their accountants, all following the advice of their PR firms.

Naomi Klein
NO LOGO, 2000

Polonsky and Rosenberger III identify five internal and external pressures that result in the “greening” of business:

- Satisfying consumer demand
- Reacting to competitors’ greening actions
- Channel/supplier requests to modify inputs
- Cost (resource efficiency and financial savings)
- Philosophy

To that we should add institutional forces and regulatory environment, including international agreements. Compounded pressures stem from all social institutional strata.

Eco-labelling is a communication label that indicates to the relevant parties that the producer abides to “green” production principles that adhere to consumer ethic, to market demands, to industry regulation, and to the regulatory environment as determined locally or internationally. The eco-label therefore communicates simultaneously to different interest groups. In this section we see that producer motivation to eco-labelling is not purely altruistic work. The “greening” of business and the implementation of the eco-label requires company-wide involvement, and can therefore affect company-wide operations. By engaging in environmental labelling, producers can influence the regulatory environment, create industry standards for environmental control, achieve cost savings, expand market share and find a market niche, as well as accrue additional indirect benefits. This opens the discussion on the issues of eco-labelling and how it impacts producers.

Pre-emptive strike

Preventative

As much as policy-makers (and politicians) look to eco-labelling as a soft tool by which to achieve environmental action without annoying the business community with mandatory standards and regulations, producers may also actively pursue eco-labelling as a way to keep regulators happy and avoid the development of top-down governmental initiatives.
Harrison (1999) writes: “The absence of governmental involvement does not mean that non-governmental programmes are without coercion. The primary motive for self-regulation may still be the threat of government regulation.” Also, producers that engage in certification are less likely to commit regulatory violations if they have set the pace for environmental management. The eco-label indicates, at the very least, the good intentions of the producer to meet, and even surpass, minimum environmental standards. From the producer point of view, the costs incurred through involvement in eco-labelling are likely to be less than if a third party prescription for change.

**Prescriptive**

Active producer engagement in the eco-labelling process, including product group selection, standard setting, and criteria revision enables producers to set standards that best conform to their production or cost preferences. As an active stakeholder in the eco-labelling process, front-runner firms and SME’s gain as much advantage as larger producers. Writing on the German Blue Angel, Müller (2002) states: “It expressly favours the interests of minorities and forerunner companies who in general have little weight and influence in the pluralistic institutional set-up of German society.” Producers who take front-runner responsibility and promote their eco-commitment do so with government support. Most programmes are government or quasi-government organisations, and therefore are at least partially subsidised. For producers seeking a positive environmental image, it is worthwhile to have the government educating the public on pertinent environmental issues while producers educate consumers on the advantages of their certified products.

There is the risk that the standards developed are then a reflection of individual producer needs that are neither industry optimal nor environmentally relevant. For example, Unilever has pledged to buy only Marine Stewardship Council (MSC) fish by year 2005. The oft expressed criticism is that in working so closely with MSC, Unilever can determine the production, or in this case sustainability, standards that are firm-specific, thereby giving them an industry advantage. It is typical that front-runner producers maintain their first-entry advantage and perform better than later entrants in the medium term.

**de facto industry standard**

“Ultimately the goal of the voluntary approach is to so routinise compliance that new norms can be made law with genuine cross-sectoral support.” (Oliveriero and Simmons 2002)

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10 Unilever worked together with the World Wildlife fund to form MSC in 1994. MSC has been operating independently since 1999.
“Widely recognised and publicly supported eco-labels may take on the form of quasi-product standards or at least develop considerable compliance pressures for the manufacturers/retailers of particular products”. (OECD 1997) Industry standards can evolve through eco-labelling in three ways.

Firstly, a group of producers can put pressure on industry. They do so to preserve the reputation of the industry as well as to prevent against unfair competition. This leads to upward harmonisation and standards becoming mandatory. Secondly, when market share for eco-labelling is very high, as is the case for laundry detergent in Sweden, the eco-label – and therefore the criteria for certification – become de facto industry standard. The market either splits into “good” labelled products and “bad” non-labelled products, with the bad eventually being crowded out, or market share reaches 100%, with the label acting as an entry requirement. The criteria required for the eco-label effectively become the de facto industry standard, thereby forcing an upward harmonisation of industry standards without becoming a barrier to trade according to WTO ruling. Deere (1999) notes that „International voluntary certification/labelling schemes and industry-led initiatives could possibly evolve to the point of serving as de facto international standards, without intervention from an inter-governmental process."

A third possibility for standard setting arises when the eco-labelling criteria is used in eco-design. Once the standards are implemented in the design stage, the criteria become the default industry standard.

**Market niche**

Producers can respond to consumer demand for environmentally preferred goods in two ways. As a re-action to demand for “green” goods, producers can push eco-labelled goods on the market, hopefully taking market share from both certified and non-certified competitors. Alternately, producers can 1) increase sales of traditional goods that are certified, 2) pull in new target groups by extending product lines to include environmentally friendly alternatives to traditional goods and 3) create new products that conform to the environmental ethic of consumers. In pursuing environmentally friendly production and products, producers can save costs and differentiate themselves in the crowded marketplace. It can achieve both customer loyalty and reach new target groups with environmental interests. Environmental responsibility has become a major part of corporate marketing and competitive policy. (Rotherham 1999) It offers the producer the chance to create a market niche and also to expand the niche to a broader target group.
Cost savings combined with marketability
Profit seeking organisations are not likely to commit to a voluntary programme unless there is an incentive that can easily translate into economic value. In the case of eco-labelling, the question is whether the price premium, higher market share and other indirect benefits of having eco-labelling certification can cover the costs involved in applying for certification and adjusting production processes to comply with labelling criteria. Table 5 lists the cost – benefit factors that a producer will consider prior to pursuing certification.

Table 5

<table>
<thead>
<tr>
<th>Producer Eco-labelling Cost Benefit Analysis</th>
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<tr>
<td><strong>Costs to producer</strong></td>
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<tr>
<td>License fee</td>
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<tr>
<td>Percentage of sales</td>
</tr>
<tr>
<td>Process changes and adaptation</td>
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<tr>
<td>Compliance and monitoring procedure</td>
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<tr>
<td>Information education (internal)</td>
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<tr>
<td>Marketing environmental benefits</td>
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<tr>
<td><strong>Benefits to producer</strong></td>
</tr>
<tr>
<td>Price premium</td>
</tr>
<tr>
<td>Marketing value of eco-value</td>
</tr>
<tr>
<td>Increased competitiveness</td>
</tr>
<tr>
<td>Reduced environmental impact</td>
</tr>
<tr>
<td>Production efficiency improvement</td>
</tr>
<tr>
<td>Higher market share</td>
</tr>
<tr>
<td>Image improvement</td>
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<tr>
<td>Strengthens employee moral &amp; commitment</td>
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Beyond the initial investment in environmentally friendly technology, a more efficient use of resources and eco-efficient production will inevitably reduce costs\(^\text{11}\). If producers conserve energy, or if they deal with waste more efficiently through internal recycling or on-site disposal, they will ultimately reduce costs. Such producers will have a competitive advantage over those that do not pursue eco-efficiency. However within this cost calculation, there is neither the necessity nor the incentive to take up eco-labelling. Producers can protect their intellectual property and benefit from a leaner production process without broadcasting their environmental stewardship or trade secrets to consumers and competitors. Morris writes “... if the use of environmental labels does not increase sales or improve the product’s or the company’s public image, then the labelling programme is doomed to failure. As a voluntary market-based instrument, environmental labelling will only be effective if it is accepted and used by manufacturers as a marketing tool.” (Morris 1997:22) The only incentive for

\(^{11}\) Based on an interview with Dow Chemical CEO and Chairman, Frank P. Popoff in the McKinsey Quarterly, 1993 Number 4, pp. 53 – 68
producers to incur the cost side of eco-labelling, a public relations tool in this sense, is if it has a market value that exceeds necessary expenditures. "It is the marketing strength of the label and its strength as a brand which will persuade businesses to participate in labelling initiatives." (EC 1998)

The market value of an eco-label is not easily established. It requires cyclical stakeholder awareness and support. Producers will demonstrate interest for eco-labels when there is a market value in licensing the label. Economic value will accrue only when the consumer 1) is aware of the label, 2) understands the label and 3) agrees that the issue behind the message is important. "The degree to which business finds eco-label schemes attractive depends most of all on the level of public environmental awareness in general and consumer awareness of the eco-label in particular," (Würzel 2001:10) Consumer awareness stems from public education and NGO information campaigns. "Companies are unlikely to choose to address environmental issues that are not of concern to the general public unless there are associated costs that must be borne by them." (Rotherham 1999:11) When this cycle is complete, producer take-up will increase.

**Graphic 10**

Producers may choose to pursue environmentally preferable production without the eco-label incentive. The label will become interesting and valuable to producers only when there is a combination of cost saving with marketability.
**Level playing field**
As mentioned in the section on de facto industry standard, producers, through majority participation or through industry associations, may put pressure on each other, or on rogue producers, to conform to certification standards. The reason for this is twofold. Firstly, producers should not gain a competitive advantage through environmental neglect. It creates unfair competition and can be damaging to the overall industry reputation. Essentially, groups of green producers gang together against producers with inferior production processes. It is their only chance to compete against the inadvertent subsidisation polluter producers have in the absence of appropriate environmental regulation.

In the case of international trade, eco-labelling can help prevent against “eco-dumping”, when unrestricted trade policy may give rise to unfair trade complaints by domestic producers who follow local environmental norms and standards, but suffer a competitive disadvantage from foreign imports produced under environmentally negligent conditions.

Secondly, multi-national corporations have organised trans-border production arrangements that make regulation and control difficult to administer. Eco-labelling offers a sort of self-regulatory mechanism which prevents rogue producers from maintaining their competitive advantage gained from environmental neglect in the production process. Eco-labelling is said then to “level the playing field” amongst producers both domestically and internationally.

**Indirect benefits**
In addition to the price premium and the cost-saving benefits of implementing eco-efficient production technology, producers further accrue indirect benefits that stem from eco-labelling certification. When consumers trust in the label is high, and this is said to be the case of third party government initiatives, the eco-label may act as a seal of approval or quality. Greater market acceptance and improved public relations enhance brand image and reputation. On the one hand, a better reputation with the public can increase consumer loyalty and lead to increased sales. On the other hand, a good reputation within the industry and the business community can lead to improved business relations, attracting better partners and attracting investment capital. Björner et al (2002) also identified “image spillovers” whereby consumption of non-certified goods increase due to the positive image projected on the entire corporation. Further, Rotherham (1999) found that companies that are able to satisfy the appropriate environmental criteria for the eco-label will be able to take advantage of a variety of benefits that include lower cost of credit, reduced insurance premiums, simplified licensing agreements (important in the context of chain of custody requirements), limited
monitoring and auditing spot checks and ensured access to more consumer and inter-firm markets. As mentioned in the section on the economics of eco-labelling, producers who engage in environmental business practices tend to out-perform environmental laggards, and have an overall enhanced reputation that leads to preferable treatment. There is a general positive outcome from the fundamental environmentally oriented mindset.

**The spirit of eco-labelling**

Like the consumer who commits to buying eco-labelled goods and feels that is sufficient individual effort toward environmental protection, producers may also succumb to the lowest possible effort toward sustainable production. This may or may not be a deliberately sinister act. This minimum effort allows producers to announce, both internally and externally, their environmental commitment. Again, following the letter of certification is not sufficient. Following the spirit of eco-labelling requires company-wide commitment across operations and functions. The eco-label is a small part of the process. „Without a specific focus on sustainable consumption, companies, for example, may continue to focus solely on sustainable production while their marketing and advertising practices may undermine any environmental improvements.“ (UNEP 1999:7) Further, the eco-label is a product-based initiative, and thereby runs the risk that a certified producer smears the eco-labelled name if they have other products or PPMs that are inconsistent with environmental stewardship. Eco-labels ought to be awarded only to companies who comply with the criteria not just in letter but also in spirit. Attaching an eco-label to a product from a company renowned for environmental negligence will only harm the reputation and credibility of the label itself and lead to consumer disillusionment.

**Conclusion**

The discussion on producers and eco-labelling, like many eco-labelling related themes, does not conclusively lead in one direction. Rotherham found that the impact of eco-labelling on producers, either for success or hindrance, include:

- proportion of domestic producers in the market
- degree of market segmentation
- degree of saturation of green market
- existing regulatory and liability framework
- principle sources of pollution (Rotherham 1999)
Polonsky and Rosenberger (2001: 26) write that eco-labelling “is unlikely to be an effective strategic tool unless it is supported by other corporate activities.” Driven by fear of loss of market share, standard setting ambition, levelling the playing field or fear of public retribution, producers are ‘voluntarily’ engaging in eco-labelling. For producers, eco-labelling is a combination of push and pull pressures, from producers to consumers, producers to regulators, inter-industry co-operation and collusion, cautionary strategy and tactical manoeuvring. By focusing on the environmental impact of production, and communicating the improved environmental relationship, eco-labelling can integrate ecology into the most fundamental commercial practices and business relationships.

12 Some items considered to be irrelevant in the context of this paper have been excluded.
The eco-label brand

“People have transferred their trust from politicians – who used to be perceived as a guarantor of life – to brands.”

July 7th, 2003 UNEP

In the section on producers and eco-labelling, we discussed the importance of the market value of the eco-label, without which producers would have little incentive to pursue certification. In this section, we will look at the concept of branding, the essence of market value, within the eco-labelling context. The potential of the eco-label as a brand has been somewhat ignored in its introduction to the consumer market. As we learned in the interviews with eco-labelling managers, tactical marketing and promotional activity have been limited. In a brand conscious society, branding represents a largely untapped strategy that could change both the value and impact of eco-labelling.

Branded society
In today’s branded society, products can be seen as bundles of satisfaction or utility the buyer receives with his purchase. The look and feel of the product, the function, the label and the prestige of the product, the customer service and the country of origin are all part of the bundle. In a society - and global society at that - where branding has become obsessive - from coffee (Starbucks) to television stations (MTV) to clothes (you choose) to airlines (Virgin), language and ideas have been reduced to symbols. Expressed in one condensed word or logo that reflects or re-enforces cultural and individual norms and values, brands speak of lifestyle, personality and attitude. Jumping on this symbol bandwagon, eco-labels also express a range of social values that compare to the emotional elements of a brand. Eco-labelling attempts to express concern for the physical environment, a rejection of environmentally irresponsible products and inefficient production methods, and support for a more sustainable lifestyle. These ‘emotions’ are the potential basis of a brand.

Move from product to brand development
Management theorists have re-focussed from products to brands. In a wave against vertical integration, managers and consultants kept themselves employed by dismantling the synergies of the previous two decades of vertical integration and instead have focussed the entire existence of the corporation on one tiny symbol, the logo representing the brand. Klein (2000:21) writes that „... the products that will flourish in the future will be ones presented not
as “commodities” but as concepts: the brand as experience, as lifestyle. Therefore the eco-label cum eco-brand has a chance to become a statement of lifestyle. It has a sort of “if you can’t beat them, join them” approach by using the forms and configurations of mass market brand appeal to encourage more environmentally conscious consumption. Indeed, the power of advertising “... almost certainly does not lie in its ability to persuade people to make rational choices to behave differently but in the frequent repetition of symbols and value statements so that they gradually become integral parts of mainstream culture and thought.” (Michaelis 2000:81) By teaching consumers to discern product differentiation through a brand, a symbol or a logo and not by the product itself, eco-labelling saves itself a costly and lengthy education process. Consumers already look to signs and symbols of familiarity and trust when choosing between like products. The eco-label is therefore abetted in establishing itself as “the brand of choice”, where consumers recognise the logo or label, have an “emotional reaction” to the concept or brand behind the label, and hence enact their spiritual support of the eco-labelled product through purchase choice.

Creating an eco-brand

“Environmental causes have an image problem – they just aren’t cool enough. A rebranding campaign to make them seem sexier might be the answer.”

Emma Young, Sydney Morning Herald, July 21, 2003 reporting on UNEP Director Toepfer’s visit to Australia

Branding offers a snug fit to eco-labelling. Firstly, if the eco-label can establish itself as an eco-brand with relevant values, associations and identity, consumers are more likely to develop loyal purchasing behaviour toward the brand mark. Secondly, branding, like eco-labelling, is not product specific. The creation of a solid brand leads to a loyal following across products and product groups, providing that the brand images and brand associations remain constant. The associative themes of a potential eco-brand – cleaner environment, social responsibility, quality goods – are characteristics that can be matched to a broad range of consumer goods and services.

To date eco-labels have been marketed in a very general sense, usually stating environmental preference of certified goods compared to non-certified goods. The German Blue Angel label, for example, lists the related environmental issue within the logo so that consumers see why the certified goods are environmentally preferable. It offers practical information that will appeal to consumers whose environmental awareness and interest
already exists. The label has been more of a confirmation of good practice for “doing my bit for the environment” than has it been a pull factor in attracting new consumers. There was a failure to identify and articulate a compelling set of “brand values” with which the consumer could personally identify. Brand values encompass the bundle of satisfaction for the consumer. Environmental relevance represents one element of many. Further, a brand needs emotion, without which it will be a consumer message that is lost in the mayhem of today’s market. The eco-label, as a practical consumer information tool, falls short of the necessary brand qualities that lead to market penetration and dominance.

Another weakness of current eco-labelling is that it appeals to a rather narrow market segment. Ecological altruism, as we learned in previous chapters, is far down a long list of necessary economic and existential security needs that must be satisfied before becoming a relevant factor in influencing buying behaviour. Even when awareness exists, willingness to pay for environmentally preferable goods may be a decisive deterrent. Hence eco-labels attract only some of the consumers some of the time. The environmental factor of certified goods is one of many aspects that can be emphasised in the creation of an emotional lifestyle image for the label. The eco-label as eco-brand, infused with emotion, therefore can be positioned to attract a broader market share.

**Mainstreaming eco-labelling**

A second possible outcome of the eco-brand would be the mainstreaming of the environmental attributes of certified goods. The pyramid in Graphic 11, below shows how brands are built according to product attributes. At the base level or entry state, a brand requires a given set of attributes to compete in the industry. Usually these attributes are the basic expectations of consumers such as security at a bank. The middle section of the pyramid, referred to as qualifying attributes, place the brand in a targeted peer group. At the top of the pyramid, spike attributes are those with the potential to differentiate the brand from peer brands. This may include functionality, durability or emotional prompters such as sex appeal or the “cool” factor. As the industry develops and technology changes, it is possible to witness a sinking of spike attributes to the level of qualifying attributes and even entry state attributes. Consumers’ brand loyalty centres around spike attributes. They change brands only when alternative spike attributes become more relevant or more important to them.
If we follow this pattern of brand development, it becomes evident that “environmentally friendly”, currently a spike attribute, should sink to a qualifying attribute over time and market exposure. This parallels the development of de facto industry standards. Issues of social responsibility and other ethical concerns will replace “environmentally friendly” as spike attributes. Müller (2002) has witnessed a decreasing interest in eco-labels from producers “… in those product categories whose environmental performance over the past decade improved dramatically and where environmental claims in advertising campaigns are widely used.” Hence the spike attribute, the environmental factor of the brand, becomes mainstream across products and brand names. The sinking of spike attributes however, does not lessen the brand value. Brand loyalty is based on the overall utility of the brand, a combination of emotions and product attributes. Alternate aspects of the brand, such as healthy living, high quality, price-performance ratio or coolness may be emphasised once “environmentally preferable” is no longer a point of brand differentiation. As long as the brand maintains a consistent image and sustains the emotional appeal of the original brand identity, consumer loyalty will be unaffected.
**Brand culture**
An alternative position to the theory of brand attributes, but equally supportive of pursuing an eco-label brand, is the overriding market trend toward “brand ideology”. “Cutting-edge trends in marketing theory encourage companies not to think of their brands as a series of attributes but to look at the psychosocial role they play in pop culture and in consumers’ lives.” (Klein 2000:176) This is a basic recognition that socio-economic trends last longer than market trends.

Looking at lifestyle trends and consumption patterns, brands which reflect cultural values can be created. Capturing on current social trends that may include, but are not restricted to, environmental awareness and concern, an environmentally oriented „brand“ can reinforce the cultural focus toward ecological thinking and sustainable consumption. Therefore brands both reflect and influence culture. The eco-brand would do well according to this theory because it incorporates a range of “psychosocial factors” that will remain part of the consumers’ value system. Again the identity and associations of the brand are not limited – and in fact should not be restricted to – purely environmental issues. Related “lifestyle” images that combine environmental concern with health aspects or high technology and emotions enhance both the appeal of the brand to a broader target group as well as the market longevity.

**Possibilities for eco-branding**

**Impact on existing brands**
The eco-label can impact existing brands in two possible ways. In branches of industry where product differentiation is difficult, the use of branding is common. Inciting emotion, sense of value, and sense of belonging can replace the absence of product feature differentiation. This represents a wide opportunity for eco-labelling used as a brand to distinguish goods within a group of like products. The brand association becomes the reason for buying. Where an existing brand is strong, there may be “... little perceived benefit from labelling, for example where brands are trusted, the use of a label may serve to undermine confidence.” (EC 1998:22) In this case, it is possible to convince producers of the market value of the label if there is an opportunity to mix their corporate image with broader social and environmental responsibility. Starbucks Coffee Company, for example, is a leading retailer and brand of special coffee with world-wide presence. In 2000, Starbucks formed an
innovative alliance with Fair Trade\textsuperscript{13} to market certified coffee where importers pay the farmers a fair price (as defined by internationally accepted Fair Trade standards for coffee) that is a premium over the prevailing market price. Additionally, Starbucks promotes the Fair Trade label and educates consumers about the conditions of fair trade. (www.transfair.org) By working closely with the Fair Trade label, Starbucks hope to demonstrate their commitment to coffee producers, fair trade, the environment and economic development, all of which improve their corporate image. Including multiple issues within a label increases the appeal to a larger potential target group.

Smaller producers who have neither the market presence nor the resources of Starbucks can also benefit from using the brand to enhance their reputation. Essentially the eco-brand will define or even replace the corporate identity of the producer. In both cases, a strong brand identity or brand culture surrounding the eco-logo will induce market value and customer loyalty, thereby creating a win-win situation for both eco-labelling and certified producers.

\textbf{The hidden brand}

Considerable potential of eco-labelling is lost through current positioning of the label which is typically found at the back of the product or product packaging. This strategy represents a lost opportunity for eco-label visibility, awareness and recognition. Relegating the eco-label to the back of the box confines the message to factual product information. Consumers pursue optimality according to time and budget constraints that do not always include checking the back of the package for detailed product information. In the same way that consumers trust and react on brands, the eco-label placed on the \textit{front of the package}, could be a one-stop signal to consumers about quality, environmental impact and social considerations. Moving the label forward also increases the point of sale promotional possibilities. Retailers cannot draw consumers’ attention to symbols at the back of the shelves. By pulling the label or eco-brand forward, retailers can create in-store advertising for the eco-brand.

\textbf{Co-branding}

Eco-labelling stresses a co-operative rather than competitive approach to selling, a phenomenon that is increasingly evident in co-branding. It is not uncommon for producers with a common target group or complementary products to co-operate on marketing initiatives, as witnessed in campaigns for mobile telephone providers and cellular telephones.

\textsuperscript{13} Fair Trade – or Transfair - promotes mutually-beneficial relationships between farmers and coffee
or soft drinks and potato chips. The brand image of each producer mutually enhances that of the other.

A second co-branding phenomenon exists in sponsorship. Popular events or social causes offer an attractive opportunity for existing brands through positive image transfer. The Olympics, Formula One and a Rolling Stones concert are prime examples of corporate interest in social engagements. In sponsoring these events, corporations not only demonstrate their status as a top brand but they also re-affirm the sense of identity which the brand encompasses. An eco-brand would necessarily involve multi-firm co-branding co-operation. The shared identity of the eco-brand would re-enforce sustainability as part of the corporate value system. Both the eco-brand and the brand owners, the certified producers, would benefit from a co-branding co-operation.

**Conclusion**

Brands outlast market trends because they reflect both the social and the individual culture of consumers. While market trends are spurious and changeable, culture and identity last for generations. Sacrifices in consumption for the sake of the environment will appeal to a narrow consumer group and change according to socio-economic developments and threats. Expanding the eco-label message into the form of a brand for certified goods that are environmentally preferable, healthy, high tech, cool or economically efficient will enhance market reach and increase consumer loyalty. The combined value of product attributes and emotional prompters associated with the brand create market value. The brand as a messenger fits with the cultural consumer norm of the time.
Chapter IV  Social forces

Social context of eco-labelling

Ecological modernisation in action
The story of eco-labelling is a long one. The interdisciplinary components, the multiple, changing and dependent variables, the lack of quantifiable results, the various stakeholders and the international context all weave a complicated tale. In the following section, it will be shown how eco-labelling is caught between conflicting societal movements. Based on the theory of ecological modernisation, it will be shown that eco-labelling is a vivid expression of fundamental change in the relationship between society and the environment that is changing the production - consumption cycle.

The theory of ecological modernisation is both descriptive as well as a driving force behind social change. It is self-perpetuating, like a well-designed PR campaign, people are talking about and acting it out. The issue of environment, previously considered an unlimited resource, a costly regulatory requirement or pesky externality is integrating into the core of the business model. Via the eco-label, producers announce their environmental stewardship and social responsibility to consumers who, in turn, demonstrate their commitment to environmental issues by purchasing certified goods. Eco-labelling then, represents the enactment of the theory of ecological modernisation. This new commercial relationship between producers and consumers that integrates environmental considerations into the market function, based on the theory of ecological modernisation, shall be called ecological marketisation. Ecological marketisation is defined as the integration of ecological consideration, responsibility and accountability into the mainstream commercial production - consumption relationship.

With this in mind, let us first analyse the social movements that merge together for the case of ecological marketisation.

The clash of paradigms
Society is in conflict with itself. On the one hand, we live in a consumer culture where markets are conversations, and consumption is the art of communication to express individuality, social relations and political ideology. With the opportunities made possible through international trade, consumption and consumer culture dictate the organisation of resources, production relations, infrastructural development and commercial arrangements.
The successful pursuit of economic development and growth is collectively expressed through mass consumption. On the other hand, there is a strong moral, political and scientific reason to change the conversation, the tenets of which are found under the United Nations doctrine of sustainability. Consumption styles in Western Europe and North America are not sustainable long-term. Hence, governments have been encouraged to pursue sustainable development, to seek economic welfare through the efficient and prudent use of resources, thereby not compromising possibilities for future generations. Myers (in Heap 2000) writes, “There is huge scope for resource efficiencies, and also for economic savings, through eco-technologies available already. We could enjoy twice as much material well-being while using only half as many raw materials and causing only half as much pollution among other forms of waste. This is known as Factor Four.” This is where eco-labelling makes its entrance.

Firstly, however, it is important to clearly state that eco-labelling is not synonymous with sustainability nor is it a sufficient mechanism to achieve sustainable consumption. Eco-labelling indicates the relationship of goods to the environment, and therefore can serve to help producers and consumers toward more sustainable behaviour. This role alone is perhaps unimpressive. What makes eco-labelling so interesting, however, is that it is the only communication tool that caters to both social environments. By engaging in the market conversation, eco-labelling integrates itself into the mainstream cultural norm of consumption. It is therefore meeting the right target group in a form of communication that consumers understand. At the same time, eco-labelling encompasses an important aspect of sustainability. It uses the power of the market to swing social norms in a more sustainable direction. Hence the message of eco-labelling is consistent with the social changes taking place. In Graphic 12, we see the social norm, or thesis, of consumer society, the backlash or anti-thesis, as sustainability, and merging from these opposing forces, on the basis of ecological modernisation, eco-labelling leads to ecological marketisation.
Graphic 12

The New Commercial Basis - Ecological Marketisation

To better understand the forces behind this social process, the elements of consumer society and sustainability are discussed in more detail in the next section.

Consumption and consumer society

[The] study of consumption is no academic bandwagon, but rather a belated acknowledgement of a fundamental transformation in the world."

Daniel Miller 1995

Social and economic welfare have an intrinsic relationship to the act of consumption. Hence the pursuit of satisfaction for basic needs of food, water and shelter as much as the attainment of designer cloths, cars and Pokeyman dolls are universal forms of consumption regardless of culture or country. Relative and varying degrees of necessity and luxury, motive, function, timeframe, context and meaning may differ widely, yet each constitutes a social act with an overriding social significance.

Mary Douglas and Baron Isherwood published their seminal work on the meaning of consumption with “The World of Goods” in 1979. Douglas (1979: 37) writes that „... goods are part of a live information system“ and that consumption is a form of communication, conferring social relations and personal identity. Consumption is “the very arena in which culture is fought over and licked into shape.” Culture, identity and power, therefore, are
expressed and re-enforced by consumption.

For Daniel Miller, consumption equates with political ideology. In his loftily titled essay „Consumption as the Vanguard of History“, Miller (1995) writes that it is the masses behind consumption who define politics and economics. Through the process of attainment, active consumers exercise control over available resources and creative power. The enduring class struggle between the owners of production and the proletariat is again being played out in the act of consumption. Miller (1995) writes that “in politics consumption becomes synonymous with choice”. Jordan & O’Riordan (2000) concur that “For a larger proportion of the world’s population, unbridled consumer choice is an unquestioned assumption of the capitalist system.” The global, primarily First World, consumer gains control of, or at least manipulative power over, global economic forces simply through their shopping habits, rituals and patterns. It is the wily consumer who determines what is produced and reaps the benefit of international production. Expressing individuality or belonging, communicating social relations, or steering the international economic order, consumption has become a compelling force in society.

**Consumer culture**

*“Mass consumption is an acquired taste of modern society.”*

*Robert B. Reich, The Work of Nations, 1992*

**Background to consumer society**

Glennie defines consumer culture as characterised by:

- Increasing per capita consumption of commodities
- Intensifying production and re-organised distribution systems
- Increasing social division of labour and increasing social mobility
- Growing individualism in social life
- Consumer acquisition tied to fashion and advertising (Glennie 1995: 170)

Consumer revolutions date back to the 18th century and earlier. (Glennie 1995). The rise of mass consumption as we experience it today, that is consumption with combined material and socio-psychological components, started in the 1980’s. Household consumption rose by 68% between 1980 and 1998, while world economic output more than doubled over the 25
years to 1999. (UNEP 2003) “We are three times better off than our grandparents were and it shows. Higher incomes, warmer homes, wider choice, better communications, faster cars, new gadgets: these are the windfalls from an extraordinary surge in consumer spending over the last few decades.” (Jackson 2004) Consumer society is not just about excessive or an overriding concern with consumption such as hobby shopping or “retail therapy”. From Glennie’s list, we see that capital relations and infrastructure are organised to accommodate and promote the consumption cycle. Western capitalist markets and consumption standards are setting the benchmark for consumption goals of aspiring peripheral states.

Environmental relevance
Despite the bustle of activity and opportunity for expression of self and freedom that consumer society implies, it is not synonymous with increased economic welfare. Both social and environmental costs can be identified. Consumption is not only unsustainable in Europe but has negative consequences world-wide. The global carrying capacity is being taxed beyond regenerative levels, and non-renewable and renewable resources alike, are being depleted. Loss of biodiversity, global climate change, and air and water pollution are the most obvious and noticeable results of excessive human economic activity fuelled by the demands of consumer society. Current consumption patterns are unsustainable because they would overwhelm the earth’s resources and absorptive capacity if adopted by all the world’s citizens.” (UNEP 1999) Western European consumption levels would be capped at a world population of two billion. (Wackernagel 2000). This also brings up an equity issue. The OECD countries hold just one-fifth of the world’s population but consume 50% of all energy and emit 50% of global carbon dioxide emissions. Improvements in technology and increased efficiency have helped to lower the level of pollution from production processes, however growth in consumer demand has offset these gains. Hence, consumption as a form of communication, self-expression and political struggle is going badly awry.

The negative consequences of existing production and consumption relations and consumer lifestyles may not be understood by consumers. Without education, the connection between urban consumer choices and environmental impact may be lost. Political inactivity, and perhaps cowardice, on the topic may also act as a public anaesthetic to this concern. There is an urgent need for governments and other agents for change to take on a more comprehensive view of mechanisms shaping consumption patterns.” (Michaelis 2000:82) The public responds to political swings. Without active governmental engagement, the problem is often perceived to be less threatening. With the institutional arrangements that
make consumption possible, consumers are unlikely to question the intrinsic meaning of their actions.

A lovely symbiosis between social and economic phenomena becomes evident when one analyses the development of consumer culture. “Consumption is a social act as much as it is an economic one” (Jordan & O’Riordan 2000) because “market outcomes tell us something about the actual choices made by people collectively, and implicitly therefore reflect social choice.” (Barham 1997) Michaelis writes that “consumption patterns are related to economic development, technological change, institutions, landscapes, demographic distributions, education systems, communication systems and cultures.” (Michaelis 2000) Here we see the socio-institutional arrangements that have led to the development, and the persistence, of consumer culture.

Social construction, institutional structure and systems of provision guide and influence the possibilities for commercial activity. Graphic 13 shows that these three elements lead to consumer society. In the remainder of this section, each element is discussed.

(Graphic 13)

<table>
<thead>
<tr>
<th>The Elements of Consumer Culture</th>
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<tbody>
<tr>
<td><strong>Social Construction</strong></td>
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<tr>
<td>• Rapidly changing relationships within the household, family, work and leisure</td>
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<tr>
<td><strong>Institutional Structure</strong></td>
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<tr>
<td>• Neo-liberal economic policy</td>
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<tr>
<td>• International trade liberalisation</td>
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<tr>
<td><strong>Systems of Provision</strong></td>
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<tr>
<td>• Global production relations</td>
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<tr>
<td>• Retailing structure</td>
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<td>• Spin industry</td>
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<tr>
<td><strong>Consumer Culture</strong></td>
</tr>
<tr>
<td>• Consumption is communication</td>
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<tr>
<td>• Social markers and self-expression</td>
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<tr>
<td>• Political ideology</td>
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</tbody>
</table>
Social construction

“Consumption is culturally determined.”
UNEP 1999

A comprehensive discourse on the social influences that have contributed to the development and formation of consumer culture would require a lifetime of study, and likely a rather interesting life at that. So as not to detract too far from the eco-label focus of this paper, the discussion on the social construction of consumer culture will be frighteningly brief, however relevant and succinct.

Beginning with the Industrial Revolution as a reference point, it can be seen that it was both the result and the cause of the advent of consumer value society (Michaelis 2000). To meet increasing consumer demands, new technologies and economy of scale production developed. To economically sustain new technologies and economies of scale production, mass consumption was necessary. Economies of scale in the factories had to be met with economies of scale of demand. The post-Fordist theory follows that mass markets, once saturated, had to be broken down into niche markets (Fine in Miller 2000: 136) and this led to an increased variety of products. Further, new technologies and production arrangements led to the creation of a gamut of previously unknown consumer goods.

High rates of labour force participation, particularly amongst women, and increasing disposable income, increased availability of credit and attitude toward credit led to unbridled consumption possibilities. Income and savings no longer pose as a constraint to acquisition. The breakdown of family structures, and in particular the creation of single households, led to duplication of necessity. One sofa, one kitchen sink and one refrigerator that serve a family or household are also requisite features of a single dwelling. Also, communication and dissemination of consumer-related information, and the shift in standard of living which defines necessities and luxuries, further exacerbate the consumption spiral. Travel, wireless communication, and most recently the Internet, expose potential consumers not just to goods but to new consumer tastes and styles much beyond their local custom, thereby creating new standards, new needs, and new luxuries.

This list does not do justice to the myriad of forces in socio-economics which impinge upon and determine the act of consumption, however the point, for the sake of this paper, has been made. Consumption is a combination of necessity, availability, organisational structure and social fabrication.
Institutional structure

Economic liberalism

Every society has a cultural myth by which it lives; ours is the myth of economic progress.

Tim Jackson, Professor of Sustainable Development, University of Surrey 2004

Beginning in the late 17th and early 18th century, economic liberalism became mainstream economic thinking in the 19th century and persists today as the classic ideology of capitalism. The basic goal of economic growth, dressed as social progress, is a political and economic doctrine upon which modern commerce is based. And commerce has evolved to become the primary force shaping the community of nations on a global scale. (Locke 2000: 11) Geopolitical relations, labour and production arrangements, international institutions, and transportation and distribution systems all cater to the pursuit of competitive advantage, economic growth and expansion. Macro-economic indictors such as GNP, per capita income and foreign exchange tally the cumulative sum of these efforts, and are applauded for their ever-increasing volumes. This singular pursuit of economic growth, however, is sharply criticised for its lack of ability to reflect the actual consequences of economic activity. Matters concerning social equity, quality of life, and environmental impact are not accounted for in these values. So-called growth may even lower human well-being if it is accompanied by growing inequity and environmental degradation. (Harris 2002) GDP makes no distinction between desirables and undesirables in this sense, only between more and less. In fact, spending on pollution control, or pollution related health costs, actually contribute to these figures. Factors that are adverse to human welfare are considered to add billions of Euro to the economy and so-called growth. (Myers 2000: 13) Also, consumption itself, presumably a direct corollary of economic growth, tells very little about the quality of life. Hence economic liberalism, or neo-liberalism, in its parochial ambition of economic growth, enables and supports the continuation of the cultural dominance of consumption.

International trade

The engine behind the policy of economic liberalisation is international trade. Growth, after all, can only be achieved though continued competitiveness, which in turn depends on ever expanding markets and therefore global trade. Trade generates consumption in three ways.
Firstly, trade decreases the local scarcity of resources. Regional availability of resources, either in volume or variety, no longer constrict consumption possibilities. Wackernagel (2000: 107) writes that "... market scarcity and ecological scarcity are increasingly separate phenomena." Secondly, international trade increases the availability of cheaper goods. Through the exercise of comparative advantage, not to mention exploitation of developing economies and their pools of cheap labour, Western consumers reap the benefits of lower priced goods. Thirdly, international trade leads to an increased variety of goods to tempt the consumer appetite. All three of these outcomes lead to increased levels of consumption in importing countries, thereby supporting consumer communication and culture.

Systems of provision

Mass production, mass marketing, and mass media have constituted the Holy Trinity of American business for at least a hundred years.

Christopher Locke, The Clue Train Manifesto 2000

Structural circumstances determine the framework of consumer behaviour. International trade has enabled the consumption of goods at prices and quantities that would not be possible in a closed domestic market. The systems of provision further contribute to consumer access and consumption of goods. Here we identify the current retail trend towards all things “big”. Shopping malls and superstores, as destinations for recreation and leisure, lead to consumption on a proportional scale. Adding to the massive availability of consumables and encouragement of large scale acquisition, the marketing and advertising – or spin – industry create a media generated culture that defines itself through acquiring and consuming the latest technological developments and fashion trends. Ownership of these goods, according to the advertising lords, means belonging to the group. Hence, social acceptance equals consumption.

Big business model

Multi-national companies come frequently under the spotlight for alleged environmental negligence, human rights abuses, exploitation of developing economies, and generally wreaking social and economic havoc on a global scale. Many MNC's have superseded national government in budgetary power as well as in shaping social and economic trends. Fifty-one of the top one hundred economies are not countries but corporations, and the
world’s 200 largest retailers account for 30% of world-wide demand. (UNEP 2003) The related forces that contribute to consumption and consumer culture are international production relations that provide for cheap goods, chain store clusters and superstores. Each of these influences fosters increased consumption.

International production relations
Inadequate national law and an absence of international regulation allow MNC’s to create a dazzling construct of spurious production relations by outsourcing and contracting, primarily to less developed countries with inferior environmental regulations and labour costs (and standards), that are a fraction of the domestic home base minimum. Aside from the economic and social injustice this process perpetuates, the net result from the Western consumer perspective is a supply of cheap goods made available on the domestic market. As with international trade, global production relations lead to decreased prices and therefore increased quantities of demand.

Klein (2000) has written extensively on the following two strategies of business that lead to the structural enhancement of consumer culture.

Chain store clusters
The shopping mall or factory outlet are often parodied as the temples of today’s consumer culture. Set in remote locations, often only accessible by car or special purpose transport, the clustering of retail centres away from the town centre turns acquisition into a family event with Disneyland character. For example, McArthur Glenn Factory Outlet has 13 locations across Europe. Part of their strategy is to deliberately locate “in the middle of nowhere”14 The average travel time for visitors is 70 minutes from home and the average visit takes five hours. The infrastructure that develops around this “growth pole” is oriented purely to enable consumption. Jordan and O’Riordan (2000:97) note that “managing demand in areas such as transport ... raises extremely difficult ethical and moral issues that powerfully challenge the very sovereignty and ‘democracy’ of consumer choice.” Consumers visit sites like McArthur Glen for recreation and leisure. Consumption is both the primary goal as well as an intrinsic by-product of the visit.
Superstores
Superstores and hyper-markets have taken on fairy tale proportions with giant shopping carts and jumbo-sized product bundling of super-sized packages stacked to the ceiling in row upon endless row of consumable goods. Scarcity in this environment is not an option. Excessive and guiltless consumption is the norm. The superstore is “... the logical result of corporate pre-occupation with synergy: part marketing, part brand-extension, part theme park.” (Klein 2000: 140)

Hence we see that big business operations create opportunities for increased consumption that would not occur at the local general store. Provision of structural arrangements however, are a necessary but insufficient condition for the attainment of true consumer culture. Big business also has the power to influence consumption patterns by forming personal preferences and instilling cultural beliefs via the conduit of advertising.

The spin industry
Today’s consumer reckons with a multi-billion dollar marketing and advertising industry. Daily, we are bombarded with hundreds of messages, images and temptations which inspire consumption. The marketing industry is consistently credited - or shall we say discredited - with churning the consumption wheel. “It is politically incorrect to implicate advertising and marketing in excessive and wasteful consumption, (Jordan & O’Riordan 2000: 98) but it is not entirely unjustified. There is virtually no paper written on sustainable development that does not make reference to the 1998 UNDP Human Development Report quoting the $435 billion global expenditure on marketing and advertising. As an industry, marketing is growing faster than the world economy, suggesting that the sector is becoming one of the major players in development patterns. (UNEP 1998:23) Hansen & Schrader (2001) also blame the “manipulation techniques" of corporations, the craft of their marketing departments, as responsible for the “destructive consumer style” of modern society. As a growing industry, it reflects a commercial value system that is intent on mass consumption. But advertising product information has become a pointless exercise amidst the cacophony of media messages. To hold consumers’ attention, marketing has been re-packaged as entertainment. (Searls 2000) Hence society is being entertained by consumer possibilities. Consumption or the idea of consumption, like skiing or tennis, has become one of the ultimate recreational leisure activities. The concept of consumer society is therefore no longer seen as the starting

14 Interview with Thomas Reichenauer, McArthur GlenCentre Manager in Parndorf, Austria, 2004.
point for criticising over-consumption, but instead it is recognised as the key to a better understanding of the dynamics of industrial societies. (Spaargaren 1998)

This concludes the social context of consumption however it represents just one side of the story. An opposite, if not equal, force is the social migration towards sustainability, the next section of this paper.
**Sustainable development and sustainable consumption**

_Sozioökonomische Entwicklungen sind niemals unbeeinflusst von den Umweltbedingungen, unter denen sie stattfinden. Gesellschaft, Wirtschaft and Umwelt stehen in einem Wechselverhältnis – sie verändern und beeinflussen sich gegenseitig._

_Fred Luks 2002_

In the description of consumption and consumer society, we looked at various social relationships and patterns that promote unbridled consumption. Parallel to, and largely in response to, the socio-economic changes surrounding consumer society, an alternative paradigm has developed. Through attitudinal changes and awareness that the existing consumer status quo is environmentally damaging, socially inequitable and unrealistic on a long-term basis, the concept of sustainable development & sustainable consumption have been introduced by powerful institutions such as the United Nations and the EU Commission.

**Background to sustainable development**

Sustainable development migrated from an obscure report produced by the International Union for the Conservation of Nature and Natural Resources in the 1980’s to become the central organising concept of the 1987 Brundtland Commission for Environment and Development report “Our Common Future”. By joining the words ‘sustainable’ and ‘development’, the Commission sought to reconcile the demands of the environment with concerns about global poverty. (Jamieson 2004). Sustainability is a 3-pillared principle of harmonising social, economic and environmental systems and goals in the form of efficient resource use, ecological balance, social equity, economic stability, and environmentally accountable production and consumption patterns. The three areas are so strongly interdependent that only progress that is parallel will be successful over the long-term. (Schrader 2001:22) One of the most important advances of the sustainability paradigm is this recognition that economic, environmental and social factors cannot be developed in isolation.

**Sustainability**

The United Nations Conference on Environment and Development, or Rio Summit, in 1992 was the apex for sustainable development. Agenda 21, the blueprint for a sustainable future, was hailed for placing environmental issues at the top of the international agenda and for
establishing the basis for a North – South dialogue and partnership. The hoopla was short-lived however. Follow-up to Rio is largely considered a failure in international environmental and development circles. The institutionalisation of the GATT by the founding of the WTO just two years later in Marrakech, overrode and undermined the pledges and the spirit of Rio (Jamieson 2004). The institutional strength and the inertia behind economic and trade liberalisation and the pursuit of increased economic welfare, displaced environmental concerns and international development.

The UN Commission on Sustainable Development (UN CSD) has been an ineffective champion for sustainable development. Commitments made in Rio de Janeiro, by both the North and the South, were not kept, and the paradigm of sustainable development has become rhetoric with broad appeal but little motivation to act. Ten years on, at the World Summit on Sustainable Development (WSSD), held in Johannesburg in 2002, member states recommitted themselves to achieving the goal of sustainable development. The outcome of the Rio +10 summit was a “Plan of Implementation”, almost an add-on feature which was forgotten during the writing of Agenda 21.

Yet the failure of the multilateral collaboration was not the demise of the principle concept. Disappointed, and perhaps disillusioned, with the inability of national governments and international organisations to build global democratic governance, civil society experienced a resurgence. Civil society is the sphere of non-state actors, including NGO’s, charities, professional associations, trade unions, advocacy groups, university institutes and business associations, that pursue social and environmental responsibility. The trickle-down mandate of sustainable development evolved to become a bubble-up action of sustainability. It was as though society decided that governing the global commons is too important to be left to politicians and diplomats, therefore civil society would take over the job itself.

But one should ask why civil society picked up the slack of the UNCSD failure. If global trends support a strong consumer society, and therefore ever increasing economic welfare, why did sustainability become the mantra for so many non-governmental, non-profit organisations? The UN doctrine on sustainable development attempts to address global issues of poverty, environmental degradation and social inequity. Somehow it failed to consider that the issues are a series of fragmented yet interconnected problems of humankind. Finding solutions is more than global ambition. It is a necessity at the most fundamental level. The shifting boundary between the state and civil society in the field of environmental protection, and the social impetus toward sustainability, can be explained by the changing ethic of the middle class, a re-evaluation of the corporate social contract,
consumer burn-out, changing knowledge base and technological expectations, and an ethic found in ecological modernisation.

Changing society

Out of an ethics of respect for nature’s diversity flows a respect for the diversity of cultures and livelihoods, the basis not only of sustainability, but also of justice and equity.

Dale Jamieson, Professor in Human Dimensions of Global Change, Carleton College, Maine 2004

The rise of civil society

Civil society refers to the set of non-state institutions and organisations, including voluntary and non-profit organisations, philanthropic institutions, and social and political movements which advocate for public interest and social development. Aided by the speed and cost-effective communication made available via the Internet, civil society organisations (CSO’s) are increasing in number and power. Increasingly, the private sector is being pressured by CSO’s, or industry and MNC representatives are working pro-actively on sustainability issues and creating their own quasi-CSO’s or codes of Corporate Social Responsibility (CSR). Civil society create "soft law" in the form of guidelines and recommendations that go beyond national and international requirements. The growth of international movements has been such that in some areas they have come to dwarf their counterparts within the UN system. Amnesty International, for example, has more resources than the human rights arm of the UN.

The World Business Council for Sustainable Development, Corporate Social Responsibility Europe, Global Reporting Initiative work alongside, and sometimes in co-operation with, well-known NGO’s to find workable, sustainable solutions to maintaining supply chains and protecting the reputations of their members. Companies are increasingly aware that they cannot afford to limit themselves only to compliance with formal regulatory requirements. “The potential to limit expenditure, maintain or improve employee and community relations, control risk and promote reputation means that applying corporate social responsibility strategies is simply good business sense.” (Kent 2001)

The goals of CSO’s and CSR are diverse and sometimes conflicting, and CSR strategies are often criticised because the motive is not altruistic. The general aim, however, is preserving the existing environmental or social arrangement, or protecting the same. The cause may not
explicitly be named sustainability, however as a social or environmental action, the consequence of increasing CSO and CSR activity represents a collective step toward more sustainable commercial and social relations.

**Consumer savvy and consumer ethics**
Customers are increasingly savvy and demanding of producers. Consumer protection organisations, buying clubs, Internet platforms and exchanges, and the ease of access to consumer reports give consumers more power in the consumer-producer relationship. Consumers can compare products and services, and diffuse information about environmentally damaging products, or companies whose production processes are a scourge to the eco-system.

Access to information has changed the consumer landscape by enabling consumers to integrate their personal priorities, values and beliefs into the buying decision. Concurring with Douglas and Isherwood, the tangible goods are only one part of the acquisition. The social context, and how the goods relate to the broader production – consumption environment, are taking on overwhelming significance for consumers. The paradigm of sustainability is working its way into the fabric of consumer behaviour. Two types of evidence support this statement.

**Ethical consumption**
Firstly, consumers have, to varying degrees, demonstrated their willingness to pay for environmentally and socially labelled goods. Grote (2002) writes that „... the willingness to pay is high in countries which benefit from a relatively higher level of consumer awareness about the environment." Björner et al (2002) found that the effect of labelling does not appear to vary with income but seems to vary with the background of marketing information and the level of education and environmental involvement. Gunkvist (2003) found that women, university educated people, and young respondents (18 – 25 years) had more positive attitudes toward organic alternatives in food products. Consumer willingness to pay demonstrates that the social and environmental context of the good has a higher priority than economic rational would predict.

Secondly, consumers are thinking not just about the goods they acquire, but also the behaviour of the producers. The UNEP found that 81% of Americans would be likely to switch brands to support a cause, if items were of comparable quality and price, and 76% would take a firm’s reputation into account when buying holiday gifts. Thirty-eight percent of the French would take producers’ corporate citizenship commitments into account when shopping. (UNEP Jan-Mar 2003). Krueger (1996) found that 84% of US consumers would be
willing to pay one dollar more for a $20 garment that is produced without sweatshop labour. Again, the goods are not valued purely for their material component and satisfaction of consumer utility. Consumers also want that the provision of these goods does not violate moral and ethical norms and standards.

The chasm between alleged willingness to pay and alleged commitment to socially responsible consumption and actual consumer behaviour is less significant than is the fact that consumers want to appear to be ethical consumers. Over-representation of commitment to ethical consumption occurs because it is becoming a norm that reflects social values and is seen as “the right thing to do”. Ethical consumption, as part of the basic social value system, paves the route to sustainability.

Re-evaluation of the corporate social contract
Scandals at trusted corporations such as Arthur Anderson, Enron, WorldCom, and even Martha Stewart Inc., have led society to question the role and responsibility of powerful corporations. Celebrity CEO’s and their dazzling salaries, unprecedented corporate profits and shareholder value amidst employee layoffs and global outsourcing, have all cast a shadow of doubt on “corporate America” and corporations world-wide. Expectations of multi-national corporations (MNC’s) have moved beyond paying taxes and providing employment. Society wants more transparency, increasing disclosure and improved social accountability. Consumers have seen the windfall of large corporations, made possible by neglecting environmental and social aspects of production. Society is demanding a corporate social contract that is fair for consumers, the environment and for social equity.

Additionally, neither the state nor international organisations seem able to cope with global issues, particularly cross-border environmental problems. MNC’s, on the other hand, have both the financial resources and the global reach, to steer social and environmental issues and responsibilities with more power than can national governments or even international organisations.

Consumer burn-out
Remaining competitive in a consumer culture is tough work, and becomes rather frustrating if taken in earnest. Firstly, the proliferation of consumer options is causing consumers to simply lose interest or burn out. Capturing the latest trends and the newest technology brings short-term satisfaction at best. Product life-cycles are shortening (think of mobile telephones) and fashion trends are changing, not just from season to season, but within seasons. The
meaning of goods is therefore changing within a decreasing time span. Communication, self
expression, and political ideology are therefore lost in the proliferation of goods, and render
goods meaningless.
Secondly, economic and social welfare cannot be determined based on levels of
consumption. Increasing consumption does not increase consumer quality of life. Paavola
(2001) writes that “spending on the immaterial status effects of consumer goods amounts to
taxing oneself and cutting back one’s ability to consume.” Hence consumers are looking for
alternate ways to consume, to communicate, and to express themselves within the social
landscape.

Rejecting the spin industry
Additionally, consumers have overdosed on advertising, marketing communications and
corporate influence in their lives, and resent the cultural distortion toward materialism that
advertising stimulates. Corporate messaging is infringing on consumers’ right to privacy.
“There is no demand for messages. ... It’s worse than noise. It’s an interruption. It’s the Anti
Conversation.” (Searls and Weinberger 2000:79)
Adbusters, a non-profit magazine “concerned about the erosion of our physical and cultural
environments by commercial forces” (www.adbusters.org) is hosting “Buy Nothing Day” on
November 26th, 2004. “The concept couldn't be simpler. As a symbolic protest, on the busiest
shopping day of the year, you refuse to participate in the consumer frenzy that has become
everyday life” is the message posted on their website.
The Robinson’s List is another example of social rejection of advertising. The list provides
protection for consumers who do not wish to be contacted by companies for direct marketing,
or junk mail, purposes. (see: www.dma.org.uk) In each of these cases, the consumer is
rejecting activities that are common to consumer culture, and moving away from active
consumption and the forces that generate consumption. Sustainability, in this sense, is a
fortuitous by-product of the rejection of materialism.

Eco-labelling and sustainability
A fundamental or intrinsic element of eco-labelling schemes, either by design or default, is
the impetus it creates toward sustainable consumption. Chapter 4 of Agenda 21
recommended that governments, in co-operation with industry and other relevant groups,
should “encourage expansion of environmental labelling and other environmentally related
product information programmes designed to assist consumers to make informed choices.”
Environmental labelling programmes seem to fit perfectly into a sustainability strategy, which aims at reconciling economic, social and ecological objectives by enabling and fostering innovation for more sustainable resource efficiency and ecologically benign production and consumption patterns. (Müller 2002) The German Federal Environmental Agency (UBA 1998) estimates that at least 30 to 40 percent of all environmental problems are directly or indirectly the result of existing consumption patterns. Any policy aimed at changing consumption patterns will therefore require both direct communication with and feedback from consumers. Eco-labelling inserts itself as a point-of-sale communication tool for environmental management and stewardship, and eases the path toward the process of sustainability.

**Conclusion**

On the one hand, sustainable development is a concept that is not amenable to a simple and universal definition. It is fluid, and changes over time in response to increased information and society’s evolving priorities. (World Business Council for Sustainable Development) On the other hand, it represents a fundamental shift in social cognisance and ethic. It is a shift in values such that nature is valued in itself and for its life support functions, not merely for how it can be converted into resources and commodities to feed the engine of economic growth. (Jamieson 2004)

Compared to the consumer society paradigm, sustainability lacks institutional and infrastructural power. It is formally acknowledged by the highest international organisations and institutions, however it is not actively pursued in mainstream channels. Sustainability lacks the unrelenting messaging of consumer culture appeal and, frankly, it does not seem as much fun. The “... symbolic attractions of resource-intensive consumption patterns are more powerful than those of sustainable consumption patterns.” (Michaelis 2000:82) This would suggest that changing and reducing unsustainable consumption could be affected by changing the moral fibre of the act of consumption. Moisander (1998) observed that “... consumption choices respond strongly to personal morals or ethics. It is in shaping ethics that the public narrative has a particularly strong role.” Through civil society action and changing consumer expectations, the ethic is shaping toward sustainability.
Eco-labelling caught in the social paradigm clash

An eco-label... is a potentially powerful force for social change.
Elizabeth Barham, Cornell University

Markets are conversations\(^\text{15}\). Producers and consumers, through the market function, collectively determine what is produced, in which quantity, quality, even colour. Consumers may not realise how they participate in this conversation. „Bewusst oder unbewusst stimmen Kunden täglich mit ihren Geldscheinen darüber ab, welche Marktangebote erfolgreich sind und welche nicht“. (Hansen/Schrader 2000:20) By inserting the eco-label into this conversation, more specific information about the social relations of the good is revealed. Mary Douglas (1997) would refer to eco-labels as „social markers“, which define something about the products we choose and how the eco-label influences the buying decision. Social markers „... represent attempts to capture or describe some element of collective intent about the organisation of society and social productions.“ Due to the proliferation of goods, there has been a „... breakdown in goods functioning as markers ...“ (Lunt 1995:247) Goods are losing their meaning because there is such proliferation of consumption choice. Eco-labelling re-loads the goods with messaging.

As discussed in the previous section, conferring of social relations is the very essence of the act of consumption. Hence eco-labelling functions with this communication matrix, conferring the importance of an environmentally conscious production - consumption cycle. Within this abstract communication, two specific conversations can be identified. They are, firstly, gaining control of production relations and, secondly, changing the value system toward holistic and sustainable consumption.

Producer – consumer relations
There is an imbalance of power on the market due to asymmetrical information. Producers have information about the social and environmental context of their production processes that consumers cannot ascertain within the traditional retail experience. Therefore the eco-label gives power back to the consumer by equalising the distribution of information. By simple daily purchasing decisions, or perhaps more importantly, the rejection of environmentally unfriendly products, consumers indicate to producers where demand lies, and subsequently encourage producers to comply with ecologically friendly production processes. Miller (1995) sees this as “collusion between producers and consumers”. Labels

\(^{15}\) Doc Searls and David Weinberger in “The Clue Train Manifesto” 2000.
help consumers vote their environmental preference in the marketplace and thereby influence production relations.

**Changing value system**
In modern societies, where individuality is often defined by ownership, financial wealth and high levels of consumption, a concept or policy such as eco-labelling - with its congruent aim of sustainability - has to offer or be something that is attractive to consumers. It has to offer a substitute for the current consumer identity. As producers are encouraged to pursue sustainable and environmentally preferable production processes, goods requiring high resource utilisation become less attractive on the market. Goods with an eco-label become 'good' whereas goods without an eco-label, whether due to failure to meet criteria or absence of participation in the eco-labelling scheme, are at least by suggestion 'less good' than those products with eco-labels.
We have seen that the indirect effects of the eco-label are more powerful than the direct effects. By loading goods with moral value, the eco-label steers the culture of consumption in a more sustainable direction. Eco-labelling arose from heightened awareness of the need for environmental protection. A momentum has built around the eco-label such that it now influences the consumer value system.

**Conclusion**
Eco-labelling is a form of communication or social language. It attempts to negotiate and deal with the current reality of consumer society, while at the same time integrating the counter-value system of sustainability. Pilfer and plunder of environmental resources is replaced by accountability and sustainability, shifting an attitude of metaphysical dominance to a more spiritual balance between man and the environment.
The forces promoting eco-labelling have not yet achieved enough momentum in society. The forces promoting consumerism - i.e. the multi-billion dollar global advertising industry - are still greater and more attractive to consumers than the alternative consumption pattern which eco-labelling represents. In this sense, eco-labelling has an image problem which prevents it from becoming mainstream or status quo in consumer society. We learned that consumption is an expression of self, a political statement, and a statement of belonging. "The idea of using purchasing (or non-purchasing) as an act of belonging ... goes some way to explaining how different social and environmental issues have come into 'fashion' at different times – for example, CFC-free aerosols in the late 1980s, animal testing in the 1990s and child labour currently." (EC 1998) By imbuing a range of moral and social values to the eco-label, the
cultural attitude toward the goods shifts. Acquisition takes on a higher meaning and ethic.

With this knowledge of the place that eco-labelling holds within the conflicting value system of consumer society and the aim of sustainability, we now move to the theory of ecological modernisation and the enactment of ecological marketisation.
Ecological modernisation and eco-labelling

In this century, the greatest environmental progress will come about not through endless lawsuits and command and control regulations, but through technology and innovation.

George W. Bush, State of the Union Address, January 2003

In Chapter 1, the theory of ecological modernisation was introduced as the theoretical basis for of this paper. With the knowledge and understanding of eco-labelling gained from Chapters 2, 3 and the first half of Chapter 4, we now analyse eco-labelling in the ecological modernisation context.

Ecological modernisation refresher
Ecological modernisation is an environmental social theory that describes the institutional arrangements of modern industrial society within the framework of ecological protection and industrial development. EM recognises the dependence of industrial society, economic welfare and economic growth on the natural environment. There is little romance or altruism to it however. Environmental conservation and sustainability is not an overriding goal of the society but a pre-condition for continued economic growth and development. By transforming central institutions toward ecological efficiency, EM offers a constructive approach to overcoming the environmental crises without leaving the path of modernisation.

Ecological modernisation was chosen as the theoretical framework for this paper because it best describes the eco-labelling phenomenon in a socio-economic context. The theory of EM evolved to become what Mol (1999) calls a “normative trajectory for environmental reform”. EM is not just a descriptive theory but a prescriptive theoretical guideline. Eco-labelling represents a part of this trajectory for environmental reform in the marketplace. Seeking eco-efficiency, reforming institutions, and engaging economic agents through the application of science and technology are central elements to the existence of an eco-labelling programme and policy.

At the beginning of this chapter, it was proposed that ecological modernisation, as a theory, leads to ecological marketisation, the enactment of the theory, which results from the converging social forces of consumer society and sustainability. With reference to the five core features of ecological modernisation identified in the overview, eco-labelling will be held up against the light of EM and a case for ecological marketisation will be made.
Changing role of science and technology in providing solutions to environmental degradation
Modern social institutions do not always have the capacity to properly channel technological developments, nor do they have the regulatory environment to control (or stimulate) its development and application. The proliferation of technology in recent decades represents a wide opportunity for society if technological advances are harnessed and applied in best ecological practice. Buttel (in Spaargaren, 2000:28) writes: “[T]he crucial role of science often lies in how it is ‘represented’ and how it is employed within social movements, interest groups, regulatory agencies ... Scientific knowledge thus often tends to be enmeshed with social symbols, political ideologies and discourses, social movement ‘frames’.” In the case of eco-labelling, programmes rely heavily on the implementation of best available technological practice. Müller (2002) states that environmental labelling can help to accelerate diffusion of technical improvements of products. It does not guarantee that an environmental problem will be eradicated, only that the aggravation caused by current production processes will be reduced. The social and political ideology of environmental stewardship leads to the application of technology solutions to be used in production processes. Eco-labelling represents both the technological application and the commercial benefits inherent to ecological modernism.

Increasing importance of economics and market dynamics, and economic agents who are the ‘social carriers’ of ecological restructuring and reform

Economics and market dynamics
Capra (1982: 225) writes: “Since the conceptual framework of economics is ill suited to account for the social and environmental costs generated by all economic activity, economists have tended to ignore these costs, labelling them “external” variables that do not fit into their theoretical models.” Hence the discipline or institution of economics has undergone a paradigm shift by integrating the so-called externalities into primary economic calculations. Huber (1985) referred to this as the “economisation of ecology”, that is placing economic value on natural resources and global commons. The land, labour and capital equation came to include the environment as a finite resource with market value. When market prices reflect the costs of pollution or integrate the costs of pollution abatement, markets will stimulate producers and consumers toward more sustainable behaviour. Within the EM framework, the “perpetuation of environmental harm is steadily coming to be seen not as an inexpensive way to externalise certain costs of production, but rather as an indication of unnecessary waste and inexpert design. Environmental responsibility and
economic efficiency are coming into alignment with one another." (Cohen 2001) Eco-labelling assists the paradigm shift toward a more holistic approach to economy, integrating the environment into the economic equation of production. Economic rationality, therefore, equals ecological rationality. The impact on the market dynamics, therefore, is to foster competitiveness and profitability through environmental protection. In Chapter 3, “The Economics of Eco-labelling”, it was shown that the eco-label affects competitiveness through pricing, standard setting and spillovers. Consistent with ecological modernisation, the integration of ecological factors in the production - consumption cycle bolsters competitiveness and market dynamic.

**Economic agents**
In EM theory, the agents of environmental improvement “... are the same corporations that environmentalism regularly vilifies for their destructive practices and spiritless embrace of banal capitalistic priorities.” (Cohen 2001) With the resources and power to re-direct the course of capitalist development, producers, and in particular MNC’s, are active participants of social change by ‘economising the ecology’, working with eco-labelling and pursuing corporate social responsibility.

Consumers have an equally engaging role as ‘social carriers’ in the reform process. Consumers express their preferences and environmental commitment in the marketplace conversation through the choice of environmentally labelled goods. “By communicating a set of socially held values as a guide for purchasing choices, eco-labelling becomes part of a larger effort to create spatially and ethically situated alternative economies as a counter-norm to the globalised market of commodified values.” (Barham 1997) Hence eco-labelling is the language of the economic agents engaging in social reform.

**Transformation of the role of the nation-state in environmental reform and the inclusion of non-state actors**
Nation states are no longer capable of solving global ecological problems. This fact necessitates international co-operation and a reliance on other actors who are better equipped to address cross-border environmental challenges. Dwarfing many national economies, MNC’s hold more power in shaping social, economic, and therefore environmental change. The nation state, therefore, needs to provide an adequate regulatory structure that enables, and motivates, powerful non-state actors to pursue ecologising of their economic activity. Cohen (2001) criticises “... the eco-modernist future leaves the state noticeable shorn of its environmental policy-making obligations, instead shifting these tasks
to the competitive dynamics of markets and to the instincts of scientists, engineers, planners, and designers.” Indeed, in the interviews with eco-labelling programme managers, many mentioned the need for more independence from the conflicting priorities and political intrigues of the state actor. The scientists and engineers, mentioned by Cohen, may well be better motivated to find optimal market-based environmental solutions within the sphere of private industry. Nation states remain responsible for environmental protection through macro-economic structural changes in, for example, energy, transport and trade, while simultaneously maintaining competitive market conditions and integrating environmental policy into other policy areas. Further, governments have a major role not just in encouraging people to consume differently, but in making it possible for them to do so. Direct action to change consumption and production is coupled with changing the context within which both take place.

The inclusion of non-state actors, such as NGO’s, in environmental policy is an important theme in ecological modernisation and in eco-labelling. NGO-state co-operation is prevalent in eco-labelling. As an example, an eco-labelling programme develops certification criteria which surpasses state regulation. Through demonstrated market success and the development of de facto industry standards, the more stringent criteria then becomes state regulation. We see that eco-labelling, a voluntary governmental or quasi-governmental organisation, or private public partnership, takes over the regulatory direction from central authorities. The cyclical impact of eco-labelling criteria, as shown in Chapter 3, “Producers and eco-labelling” demonstrates the changing role of the nation state and the integration of non-state actors integral to environmental policy-making.

*Developing role of social movements in the process of ecological transformation*

The state has failed in its environmental responsibility, and therefore civil society has become very active in environmental protection and changing institutions toward sustainable behaviour. In Chapter 4, civil society was described as part of the fundamental social force leading toward sustainability. Sustainability and CSO’s are mutually reinforcing, creating a dynamic social movement which takes on responsibility in a capacity that the state, due to conflicting interests, cannot. Eco-labelling itself is a quasi-social movement. The collection of eco-labelling stakeholders, representing diverse interest groups, have a common aim of changing the production - consumption cycle toward more environmentally benign practices. Their forum for ecological transformation is the marketplace.
Changing practices and the emergence of new ideologies in politics and society
Distinct patterns of social behaviour support the EM theory of new ideologies and practices. Firstly, science and technology are integrating into daily life at the household level. Not only do we trust science to find production efficiencies and to measure criteria in the industrial context, but technology has also become “consumer friendly”. The Internet in particular, the ultimate ‘ecolmod’ tool, uses technology to enact social change. Dissemination of information is faster, allowing consumers and like-minded global citizens to communicate via the Internet, exchange ideas and information, and collectively work together on issues that are globally present and locally relevant.

Secondly, ecological issues are mainstreaming into various facets of society. In the political sphere, there is a marked increase in “green” parties that were considered left-wing radicals just 10 years ago. In the 2002 national elections, “Die Grünen”, the Green Party in Austria, gained 9.5% of the vote and 12.8% in the 2004 European elections. The corresponding numbers for Germany are 8.6% national and 11.9% EU. (www.europeangreens.org) Further, most OECD countries have explicit green purchasing policies (Lundqvist 2000) and several countries use eco-labelling in public procurement, either as a prerequisite for tender or by using the certification criteria as a benchmark. Eco-labelling supports both the political and economic integration of ecological transformation into mainstream institutions.

The case for ecological marketisation
Eco-labelling tends to be frequently regarded as an experimental subset of some larger abstract trend such as a niche in marketing, an offshoot of environmentalism, or an experimental policy attempt to influence sustainable consumption, when in fact it is the embodiment of these diverse movements. Eco-labelling is 3rd generation EM, incorporating the vital element of consumption into the fundament of the theory. Consistent with ecological modernisation, there is a lot of optimism with eco-labelling and the axiomatic understanding that ecological problems can be transcended via the market function. The pursuit of Huber’s ‘ecological butterfly’ takes the form of integrated pollution management and eco-efficiency, thereby reducing the environmental impact of the production - consumption process. Rather than being a spurious trend, environmental labelling can be seen as representing a shift toward ecological marketisation. The analysis of eco-labelling based on Mol’s five features of EM has shown that eco-labelling adheres to the structural basis of this theory. As a market-based instrument for environmental management that functions within the producer - consumer relationship, eco-labelling can be seen as the ecological marketisation of consumer society. By integrating environmental considerations into the mainstream
marketplace function, eco-labelling is assisting the shift of commercial capitalism away from singular profit measures toward a holistic approach to the production - consumption cycle. The environmental impact of environmental labelling is less significant than is the integration of the environment into the consumer and producer psyche and behaviour. By working between the two social forces of consumer society and sustainability, eco-labelling is creating a new social norm in the commercial environment. With ecological marketisation as a basis for the new production - consumption relationship, we can now identify best practices in eco-labelling.
Chapter V  Best practices in eco-labelling

Limitations to eco-labelling

We have, through empirical observation and methodical analysis, explored the multi-faceted workings of eco-labelling, focussing on the economic impact, the meaning of eco-labelling in the context of international trade, how eco-labelling impacts upon consumers and producers and finally, how eco-labelling inserts itself in a branded market, in a consumer society and in a global economic and cultural system. There were few black and white conclusions. As preparation for the best practices in eco-labelling, we should first look at the limits to and opportunities created by eco-labelling. It has already been mentioned that because eco-labelling is a multi-disciplinary phenomena, reaching across disciplines and across stakeholder groups, it lacks real impact within any particular sphere. Yet a concept or policy of insignificance would not have such far flung repercussions. Citing Gregory Bateson, Capra writes “Any thing ... should be defined not by what it is in itself, but by its relation to other things.” (Capra 1982: 81) Herein lies the essence of eco-labelling – it is its relations to other things – institutions, trade policy, producers, cultural values – that gives it context and significance. Before best practices in eco-labelling are discussed, let us first look at both the limitations of the relations of eco-labelling as well the opportunities the relations of eco-labelling create.

Programme design
The primary limit of eco-labelling as a policy tool is that it is voluntary. Therefore if there is a lack of awareness, lack of interest or outright opposition to the programme, there is no possible recourse for laggards. The eco-labelling scheme is highly dependent on the commitment from producers in the form of stakeholder participation, but most importantly, eco-labelling take-up and licensing, without which the programme will fail. The potential of eco-labelling is also restricted by programme dependence on government support, either for credibility and/or for funding. Government involvement in the programme is a double-edged sword. Whereas consumers appreciate the trustworthiness government backing provides, producers may be wary of disclosure, auditing and further controls. Eco-labelling managers are grateful for the funding, however may be pressured by a political agenda that is outside the relevance of the scheme.

The costs of maintaining the programme, with or without government support, is a constant balance between economics and environmental ambition. High costs are dissuasive to
producers, as are high certification standards. Hence a balance must be struck between setting criteria that is reachable for a sufficient number of producers to cover the costs of the programme. Technical feasibility and measurability of change further confine the number and variety of products and product groups that will be selected for labelling. Product categories that may be unpopular, or for which the programme will not be able to cover costs, are therefore excluded. Finally, violations may be under-reported in order to give the appearance of effectiveness. These are the restraints within which eco-labelling operates.

Consumers and consumer culture
As much as the voluntarism of eco-labelling may limit producer take-up, and therefore programme effectiveness, the same applies to consumers. Consumers must be aware of eco-labelling and accept its inherent value. Most certified goods are sold at a premium and therefore consumers must demonstrate their willingness to pay the higher prices for otherwise like goods. However, environmental labelling and information, in the form of the eco-label, cannot solve environmental problems. Research has shown that enthusiasm of consumers does not always lead to commitment. Quality and convenience of goods must remain on same level. Further, any threat to individual existential security overrides environmental concerns. Hence eco-labelling will be of interest to a narrow group of consumers and countries who, on the basis of economic security and general well-being can ‘afford’ the luxury of morality in consumption. It must be accepted that there remains a central egotistical characteristic in consumption and this will diminish the impact of the programme.

Eco-labelling is highly culturally dependent. Cynics of eco-labelling do not take long to point out that the inherent problem of eco-labelling is that it exists in a consumer society, where consumption is communication, and therefore the message of environmental labelling goes against the grain of modern society. Even when the message is heard, eco-labelling may lead to “permission consumption”, whereby consumers continue unsustainable consumption patterns based on their false belief that certified goods are environmentally benign and therefore void of consequences. When this happens, the essence of the programme is severely restricted, if not reversed.

Environmental relevance
As mentioned above, eco-labelling does not influence total consumption, and it is this absence of effect that is the secondary weakness of the concept. Per capita pollution levels
are not as important as absolute levels. Further, the environmental effects of economic activity are best told by consumption levels, not production levels. Therefore eco-labelling does not demonstrate a high environmental impact.

The selection of product groups is not guided by environmental principles but by technical and financial feasibility. Products with a high environmental impact are often ignored. Further, not all products are suitable for eco-labelling. Based on these restrictions, as well as the administrative threshold, only a small fraction of consumer basket has the potential to be labelled.

Life-cycle analysis, while aiming to satisfy environmental purists, is somewhat of a random science. Determining the beginning and end of the life-cycle requires setting boundaries at points that are indeterminate. Some phases of the life-cycle are difficult to control, and depend on producer and consumer behaviour. The packaging, marketing and use phase of the product life-cycle are different for individual producers and consumers. Again there is a compromise between a sound scientific basis and manageability of the programme. There is a certain arbitrariness that must be accepted and accounted for in the programme design, but will in any case hinder environmental effectiveness.

Technology lock-in is a further possible restraint to eco-labelling. Technological developments cannot be planned. This, in combination with the administration of eco-labelling, will detract from the overall impact.

Finally, eco-labelling, as a policy, cannot solve cross-border issues and global environmental problems. It can encourage consumers and producers in the domestic market toward improved behavioural patterns, however it does not represent a total solution to global environmental issues. Recognition and incorporation of country-specific variables make international co-ordination difficult, if not in violation of existing agreements. Hence, eco-labelling should not be considered as a stand-alone environmental policy tool.

**Market character**

The size and structure of the country or market may pose as a limitation to eco-labelling. Where the number of players is very small, eco-labelling will not provide a competitive edge for producers, and may not in fact be the appropriate policy tool. Further, the model of a single centralised labelling programme is not appropriate in countries that have alternate environmental policies or lack of a federal mandate to consolidate such activities.

The retail structure, as the main point of contact with consumers, will also influence the impact of the label. Retailers have to be willing to accept certified goods into their product portfolio. If the demand for products is very low, it is not in the interest of retailers to take up
valuable shelf space with low turnover goods. If certified products do not fit with their corporate identity, they will not include eco-labelled goods in their product assortment. Retail co-operation is also necessary in the display of goods. Shelf management, a retail science in itself, determines where and how the goods are sold within the retail outlet. Without prominent positioning, eco-labelled goods remain at the periphery of the consumer basket.

A strong regulatory environment is necessary for marketing and retailing. Where intellectual property rights are not well protected, producers cannot be expected to reveal details of their production processes. On the other hand, producers use copyright and trademark laws to effectively block revealing their production processes. In some industries, trade secrets define the success of the business and cannot be compromised for the sake of the eco-label. This will individually and collectively limit the success of environmental labelling.

Finally, the effects of globalisation and liberalised international trade can hinder eco-labelling progress at the national or regional level. If eco-labelling is considered a non-tariff barrier, if consumption made possible through international trade exceeds environmental savings of eco-labelling, and if cultural values of consumer society cross borders, the eco-labelling effort will be significantly hampered.

Typically, eco-labelling exists in a highly competitive messaging environment. Therefore the message of eco-labelling tends to be lost in the marketing and advertising for glossier, more attractive images than ‘environmental conservation’. In an active market where consumers are accustomed to a perpetually changing product assortment, and sales incentives and motivations, certified products are at the whim of the consumer and risk becoming a short-term trend or fad. The timing of the introduction of certified goods is also dependent on the existing market dynamic and competing products, images and values as well as larger social issues that affect consumer behaviour. This might include economic indicators, terrorism (as was witnessed after September 11th) or even world championship soccer. These issues compete for media attention and influence the social mood of the time, as well as individual buying patterns. The lack of financing to enable competitive strategies and the lack of business savvy has led to weak advertising and therefore low consumer awareness.

Also, the number of labels on the market will add or detract to labelling success. In a multi-label market, consumers and producers suffer from label fatigue, or too many labels to comprehend or trust. While increasing awareness and competition between labels on the one hand, and overwhelming consumers on the other, there is a balance between effective active labelling and overkill. International labels may have less meaning on the domestic
market than regional labels.

The limits pose a seemingly crippling list. However not all of the limitations described above exist in all situations. Through appropriate policy design, they can be reduced or avoided. To counter this grim picture, let us now look at the possibilities eco-labelling has to offer.

**Opportunities for eco-labelling**

The previous section has shown that the limits to eco-labelling are certainly evident. However, depending on programme design and implementation, many of these limitations can be overcome. At the same time, eco-labelling as a policy has considerable unused potential. There are opportunities in eco-labelling that have not yet been properly exploited. Again, through appropriate programme design and implementation, the net impact of eco-labelling can be enhanced. In this section, we discuss the opportunities in eco-labelling that increase its value as a policy tool.

**Consumer relevance**

In the current consumer culture, eco-labelling is hitting the target group who are most capable of enacting behavioural change toward more environmentally sound consumption. Labelling provides information that previously was unknown to consumers. This new knowledge enhances the consumer right to know, as well as increases market efficiency as consumers demand goods based on fuller information. Eco-labelling further has the ability to communicate complex messages in a single logo. Promoting more information for consumers does not mean more details of production activities or reports on biodiversity. Popular wisdom that “the ozone hole is bad” is sufficient information for consumers to make environmentally astute consumption choices.

There is great potential in the positioning of eco-labels to a broader consumer group. To date, environmental labelling has usually been targeted to environmentally aware consumers, therefore confirming their consumption behaviour, but not necessarily forming it. When the target group of the eco-label is increased and includes mainstream consumers and daily consumer practice, the overall impact will be much greater. The power of the eco-label as a brand, valued for non-tangible quality, style or image, has been under utilised.
Further, labelling has the potential to mobilise the collective power of the global consumer. Informed consumers can be a powerful force for better environmental governance. Finally, eco-labelling fits well with the cultural norm of the time. In using a logo to express or convey the message, it is a form of language which is currently popular in consumer markets. Once that message is refined and made appealing to a broader consumer group, the labelling movement will have much higher impact than is currently the case.

**Policy diffusion**

By working directly with producers, eco-labelling has great potential in directing environmental developments for industry management and conservation of biodiversity. Working in tandem with stakeholders, environmental production standards that go beyond legal minimum requirements but are otherwise feasible for producers, eco-labelling programmes can lead to new environmental policy creation. Producers can set the pace for environmental control better than pure government regulation. Also, eco-labelling has a broad reach which promotes communication with consumers, producers, government and policy-makers. It is possible for eco-labelling to influence areas where other instruments or steering mechanisms cannot.

Eco-labelling has been recognised at the highest institutional levels and amongst international policy-makers. It is at the centre of global cultural forces – international trade liberalisation and consumer society. There exists great opportunity for eco-labelling to tap into these two diverse phenomena that are shaping society. Finally, eco-labelling can be combined with other international policies to help achieve social goals. Environmental protection, as evidenced by the multiplier effect of the eco-label, is supported. Sustainable development, integrated product policy and corporate social responsibility are arenas in which eco-labelling can play a positive and influential role.

**Environmental effects**

Eco-labelling reduces the negative externalities of production. It is a preventative remedy to the environmental effects of production, thereby having a more integrated, even holistic, approach than other environmental policy measures. It teaches environmental stewardship as an integrated part of production rather than as an addendum to the production process. It changes production processes, but more importantly, it shifts the fundamental mindset of producers, from ex post to ex ante, in dealing with environmental issues.

As mentioned above, eco-labelling also solves market failure due to asymmetrical information by providing consumers with greater choice, and therefore increasing market
efficiency. Eco-labelling further increases environmental standards for products and PPMs. Through the revision of criteria, continual improvement entails. Also, requirements can be stricter than legislation and can lead to improved environmental regulation. By providing market-based solutions to environmental issues in production, eco-labelling can lead to a cleaner and greener production - consumption cycle, identified in this paper as ecological marketisation.

**Good business**
Through eco-labelling, producers have the opportunity to add value to existing products, to increase competitiveness, improve market image, expand reach in existing markets and for international producers, promote exports from developing countries. The presence of the eco-label leads to fair competition and harmonised standards in environmental stewardship in production. Innovative producers are rewarded for environmentally preferable production methods, thereby attracting capital investment, decreasing liability risks and improving partner relationships. Consumers reward socially responsible producers with loyalty and positive recommendations. Business is learning that increased eco-efficiency has an impact on the overall bottom line of the corporation, and that eco-labelling can help lead the way for producers pursuing this aim.

If eco-labelling programmes can emphasise the opportunities in policy design, there will be a more favourable response to the initiative from the varied stakeholders. The emphasis should be on the relationships that eco-labelling has to society, from the environmental perspective to cultural influence to business practices to international trade.

With these limitations and opportunities in mind, we will now discuss best practices in eco-labelling.
**Best practice**

“We have to identify the underlying driving forces of consumption and use this knowledge to raise awareness throughout society, inspire governments to design incentives and infrastructure for sustainable consumption, and encourage businesses to design and offer better products. Instead of preaching the environmental message, we can market it.”

*Klaus Toepfer, UNEP Executive Director, July 15, 2003*

The diverse aspects of eco-labelling make it an interesting policy tool, and one that is difficult to manage. It is neither a stand alone tool nor is it a sufficient tool to achieve environmental preservation and sustainability in the sphere of consumption related ecological problems. However, through its complexity, multi-stakeholder involvement, and multi-disciplinarity, eco-labelling can have far reaching consequences that are worthy of pursuit. In this final section, we will look at the best practices in eco-labelling in the national setting, within the programme, for producers and finally within the social context.

**National characteristics**

Embracing the view of ecological modernisation, a supportive role of government is a necessary, if not sufficient, condition for a successful eco-labelling scheme. To foster effective eco-labelling initiatives, governments should create appropriate institutions, popularise environmental and social sustainability, create demand side change, restructure taxes, and pursue co-ordinated efforts to optimise the eco-labelling multiplier effect.

Firstly, environmental issues and environmental preservation effects need to take a higher priority on the political agenda. Government should create a solid institutional framework for eco-labelling and publicly offer strong financial, operational and ‘spiritual’ support for the programme. Government must send a clear message to consumers, producers and the international trading environment that market-based goals toward environmental conservation and sustainability have a high priority, and that the eco-label can help to achieve these aspirations. To bolster these efforts, government should popularise the general concept of environmental conservation and sustainability through thematic campaigns which appeal to the broader public. The government can create an institutional framework, and a national spirit, that fosters environmental and sustainable thinking.

Secondly, government can reinforce the eco-labelling momentum and create demand side change. Government spending represents a sizeable portion of national GDP. Hence public procurement is a powerful mechanism for using the eco-label within the system. Again, the
government has the power to create an institutional norm by making the eco-label status quo in public purchasing.

Thirdly, government needs to create consistency within environmental policy. The inherent subsidisation that accrues to environmentally negligent producers should be reversed through taxation. Environmentally responsible producers should be relieved of the financial burden of pursuing the eco-label. Taxes should be structured so that certified producers are rewarded for their environmental stewardship. Taxes for certified goods should be decreased or taxes for non-certified goods should be increased. Fiscal arrangements should inspire sustainable behaviour, again leading to the standardisation of environmental stewardship.

Fourthly, the multiplier effect of the eco-label, considered to be the area of greatest environmental impact, should be fostered. Rather than accept the happy coincidence, the multiplier should be a deliberate part of the strategy. Government should raise awareness, foster relationships and develop partnerships that will enhance the multiplier. Knowledge management, information and technology transfer, environmental conferences, and research studies need better publication and co-ordination. Government is the enabler for policy distribution and establishing the norm of shared knowledge.

With improved understanding of the eco-labelling dynamic, the government can move eco-labelling beyond ‘environmental policy’ toward the ecological modernised integration of state and economic actors, bringing eco-labelling into an entirely new operational realm.

**Programme**

**Institutional structure**

The independent third party structure of an eco-labelling programme is the only body which can fairly operate a programme, whether a public or public-private initiative. Broad stakeholder involvement in programme formation, product group selection and criteria development is essential. Environmental, social, and economic conditions for the region should be considered when establishing the objectives for the programme. A policy will always be held to criticism as long as it cannot be measured. An eco-labelling programme must establish criteria for economic and environmental measurement, and demonstrate the value of the multiplier effect. Measured successes must be regularly announced, thereby increasing producer and consumer awareness and respect for the programme.

**Eco-labelling business**

An eco-labelling programme should be run like a business and work with the existing
commercial infrastructure, not against it. Eco-labelling managers must have the business savvy and financial skills to operate the organisation under competitive market conditions. They have to work with producers, and their marketing departments, to exploit the potential of the eco-label as a marketing tool, and move the eco-label to the front of product packaging and to the centre of marketing campaigns. Eco-labelling managers need to work with distribution channels to optimise the market presence of certified goods, and work for better displays and positioning of certified goods, as well as in-store promotions. Eco-labelling managers are responsible for generating 'market excitement' about the eco-label brand.

**Product group selection**

Product groups should be based on environmental relevance. Product standards must be associated with significant environmental differences amongst products. Product valuations must be known and accurate. Product group strategies should be promoted to producers and consumers, creating initial awareness and a multiplier effect. Product group strategy should be tactical, leading to product bundling. The effects of the certified product groups must be measurable, reinforcing the effectiveness of the programme and leading to environmental improvement.

**Broaden scope**

To maintain the economic incentive for producers who seek a label-based price premium, an “ECO PLUS" label which would honour efforts that go beyond established certification criteria would stimulate competitiveness and overcome the risk of downward harmonisation and technology lock-in.

Environmental labelling should be linked with other social and economic issues. Safety, health and hygiene are obvious potential partnering themes, as are quality, efficiency, and price-performance ratio.

To avoid consumer confusion and maintain the integrity of the label, eco-labels should be awarded to producers who practise company wide corporate environmentalism. Eco-labels only consider products, and not a company’s overall environmental performance. To achieve better environmental standards, a firm needs to be considered as a whole rather than by individual products.
Producers
Producers who use the eco-label should engage in company wide long-term environmental stewardship. Eco-labelling is a complex tool that must be integrated across organisational areas. Meeting certification standards for a product or product group is not just a technical requirement. The producers should embrace the spirit of the label, thereby sending a consistent message to consumers, and further internalising the values and practices of environmentalism throughout the organisation. Producers need to integrate eco-labelling into the overall marketing strategy to appeal to a larger consumer group. Producers should create market value for the label. The eco-label is a certified mark of quality that producers can use to enhance their brand and image. Producers can create an eco-label brand, creating trust and familiarity, reducing the time for rational decision-making, and reducing the time required to find ethical brands. Producers should create an eco-label lifestyle and engage lifestyle marketing that includes non-tangible brand characteristics such as quality, efficiency, state-of-the-art technology, or just plain “cool”.

International environment

Nothing is better for eco-labelling than to be at the forefront of debate at the highest institutional levels. This kind of coverage indicates how eco-labelling hits at a fundamental core of social and business goals. From the experience of existing programmes, the following factors should be integrated into eco-labelling policy design\(^\text{16}\):

- Transparency, credibility and comparability across national borders
- Standards on standard setting - ensure that national and international schemes remain non-discriminatory
- Ensuring fair and trustworthy certification for domestic and foreign producers
- Development of standardised methodologies and operating practices of environmental labelling programmes world-wide
- Promoting mutual recognition and international co-operation and harmonisation such as GEN and ISEAL

\(^{16}\) This section relies heavily on Piotrowski & Kratzer 1999 and Grote & Volkgenannt 2002.
Reduce transaction costs by negating the need for double testing and verification

Equivalency requirements for multi-national producers to comply with their home office environmental and labour standards

Prioritising product categories (and avoiding certain product categories in the short term)

Integration of environmental concerns in the WTO agreements

Prioritising broad stakeholder involvement, particularly foreign stakeholders

Working with developing countries to promote technology transfer and assistance in certification

Allowing for national environmental particularities (country specific differences in resource endowment and environmental conditions)

**Social context**

Eco-labelling has compounded social ramifications. A lot of debate and a lack of consensus surround issues of environmental impact, economic consequences, impact on competitiveness, international trade and development, consumer behaviour, regional and international politics and cultural consequences. Understanding the complexity of eco-labelling and what it means in society - the socio-economic, doctrinal and moral significance - will aid in the development and design of eco-labelling schemes which help to attain market related socially determined goals.

Eco-labelling must be understood in the context of conflicting social forces that influence, not just consumer behaviour, but the institutional structures of consumer culture, to sway consumption in a more sustainable direction. Eco-labelling can change cultural values and the meaning of goods as was the case with ivory, fur, or cigarette smoking. It fosters the same type of normative behaviour.

Integrating ecological variables into the marketplace function, ‘ecologising the economy’, is the most valuable contribution of eco-labelling. For eco-labelling to be successful, the forces of consumer culture must be acknowledged and considered in the basic design of the programme that upholds the tenets of sustainability while simultaneously appealing to the prevailing cultural norms. The eco-labelling message must have broad appeal and offer a form of communication that consumers embrace as an attractive alternative to the existing status quo. Eco-labelling is the enactment of the fundamental marketplace shift toward ecological marketisation. By mainstreaming environmental issues into the commercial
dialogue, eco-labelling creates social norms that will inherently include respect for environmental and social sustainability. This will change the momentum of modern consumer culture.
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www.uea.ac.uk/env/cserge/research/fut_governance/Stockholm.pdf


Useful Website Resources

Eco-labelling Programmes:

Austria: http://www.lebensministerium.at/umwelt/

Denmark: http://www.ecolabel.dk/

EU: http://www.europa.eu.int/comm/environment/ecolabel/

Germany: http://www.blauer-engel.de/willkommen/willkommen.htm

Sweden: http://www.svanen.nu/

http://www.snf.se/bmv/english.cfm

India: http://www.cpcb.delhi.nic.in/index_ecomark.htm

New Zealand: http://www.enviro-choice.org.nz/

Norway: http://www.ecolabel.no/


UK: http://www.ecosite.co.uk/Ecolabel-UK/


Forest Stewardship Council: http://www.fsc-info.org/english.htm

Marine Stewardship Council: http://eng.msc.org/


Global Ecolabelling Network: http://www.gen.gr.jp/

Miscellaneous Sites:

http://bmue.de and http://www.umweltbundesamt.de/umweltzeichen

http://ends.co.uk/envdaily

http://www.iisd.ca/

http://biodiversityeconomics.org/index.htm

www.uea.ac.uk/env/c serge/research/fut_governance/Home.htm

http://www.ns.ec.gc.ca/g7/eco2.html

www.greenbiz.com

http://www.sustdev.org/

http://www.iclei.org/

http://www.ictsd.org/