

# **An Integral Ecology of Commerce to Avoid Dystopia**

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# An Integral Ecology of Commerce to Avoid Dystopia

*The world has enough for everyone's need, but not everyone's greed. – Mahatma Gandhi*

## Abstract

Sustainable Development requires that our economic and business systems must operate in a way that sustains the earth's ecosystems for future generations. Most businesses continue to grow consumption, resource usage, emissions, waste and pollution from levels that are already above ecologically sustainable levels. Pressure for unsustainable economic growth comes from an increasingly powerful corporate sector, which is locked into a system that requires continually increasing revenues and profits usually achieved through increased resource use and increased pollution and waste. Australian society does not know whether it is meeting the stakeholder needs of future generations and the environment. An Integral Approach to Sustainable Development is proposed to address the extremely complex societal change problem posed by moving to Ecologically Sustainable Development.

## Introduction

It is more than 30 years, since *Limits to Growth* (Meadows 1972) raised the issue of whether sustainable economic growth was an oxymoron. The debate has continued ever since, whether economic growth and environmental/ecological sustainability were compatible. In 1987, *Our Common Future* (WCED 1987) was issued in response to a request by the United Nations. This defined Sustainable Development(SD) as:

*“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987).”*

Over 10 years ago, Paul Hawken (1993) suggested an approach to this problem for business in *Ecology of Commerce*. He defined Sustainability, in a similar way to the above Sustainable Development definition:

*“Sustainability is a state where the demands placed on the environment by people and commerce can be met without reducing the environment's capacity to support the demands of future generations.”*

The paper initially reviews some of the reasons for the lack of progress by business towards SD against the eight objectives for business in relation to SD proposed by Hawken(1993). It then aims to identify and examine some of the systemic reasons for this extremely disturbing lack of progress by business and society towards an ecologically sustainable triple bottom line.

It then proposes some societal strategies, using the Natural Step system conditions for ecological sustainability (Robert, Schmidt-Bleek et al. 2002) and the Integral Framework (Wilber 2001) as a strategic integral framework as ways which may address this extremely serious problem.

## **Eight Objectives for the Ecology of Commerce**

Hawken (1993 pp xiv-xv) proposed the following eight objectives for business in order to ensure that society made the needed progress towards sustainability:

1. *“Reduce absolute consumption of energy and natural resources in the North (developed world) by 80% in the next 50 years.*
2. *Provide secure, stable and meaningful employment for people everywhere.*
3. *Be self-actuating as opposed to regulated or morally mandated.*
4. *Honour market principles.*
5. *Be more rewarding than our present way of life*
6. *Exceed sustainability by restoring degraded habitats and ecosystems to their full biological capacity.*
7. *Rely on current income.*
8. *Be fun and engaging, and strive for an aesthetic outcome.”*

He does give much more detail on what is meant by these objectives in the preface and elsewhere in to the book. He also claims that no other institution in the modern world than business is powerful enough to foster the necessary changes required to progress towards sustainability. More than 10 years since the Ecology of Commerce was published, it is therefore valuable to review business’s progress towards these eight objectives for sustainability as part of a radical redesign of society that Hawken (1993) and many others among them (Meadows, Meadows et al. 1992; Daly and Townsend 1993; Bossel 1998; Costanza 1999; Schor and Taylor 2002; Slaughter 2004) have stated is needed for SD.

### **1. Reduce absolute consumption of energy and natural resources by 80% in the next 50 years**

If substantial progress were being made towards this objective, you would probably expect in the first 10 of the 50 years for energy and resource use to stabilise before being reduced significantly. However, resource use, waste and greenhouse gas emissions are still increasing in most OECD countries, including

Australia and New Zealand, albeit at a slightly slower rate than overall economic growth(OECD 2002). Despite a huge amount of rhetoric about eco-efficiency from the World Business Council for Sustainable Development (World Business Council for Sustainable Development Accessed February 2004), other business organisations and corporations, global energy and resource use continues to grow (World Resources Institute, United Nations Development Programme et al. 2002; Worldwatch Institute 2002) from already unsustainable levels (Wackernagel, Schulz et al. 2002)

## 2. Provide secure, stable and meaningful employment for people everywhere

The top 200 firms by revenue, globally, by the year 2000 represented almost 30% of world GDP (economic activity) and only employed less than 1% of the global workforce (International Forum on Globalization 2002). In addition, a huge proportion of the global working population would not be included in most measures of the global workforce. The business system, as discussed in more detail later, puts pressure on business to continually reduce costs, often through reducing employment and also outsourcing to lower wage countries that often offer employees extremely poor pay and often dangerous working conditions (Derber 1998). The ILO estimates worldwide unemployment at 186 million (International Labor Organisation 2004) – over 7 times the total population of Australia and New Zealand. The same report estimated the "working poor" - defined as those living on \$1 a day or less - has remained at 550 million. That is more than double the population of the USA. We are therefore clearly still a long way from providing secure, stable and meaningful employment for people everywhere.

## 3. Be self-actuating as opposed to regulated or morally mandated

Hawken (1993) acknowledges that governments have a critical role to play but “that role must coincide with the natural impulses of society” which in his view seem mainly to relate to personal freedom, free enterprise and market choice. Most businesses still see their primary responsibility being to their shareholders to make ever increasing profits (Derber 1998; International Forum on Globalization 2002), However, in order to achieve this over the longer term they do take into account the wide variety of stakeholders that may have a significant impact on their business (Hanson, Dowling et al. 2001). Future

generations and nature do not generally feature amongst the stakeholders considered by most businesses, although the environment is increasingly seen as important (Dunphy, Andrew et al. 2003).

The problem is that businesses, particularly publicly owned corporations, are locked into the current unsustainable system. What makes the current system unsustainable will be explored in more detail later in the paper. Without substantial changes to the system, business will not be constrained by ecological limits. Hawken (1993) puts forward a similar viewpoint:

*“As hard as we may try to become sustainable on a company-by-company level, we cannot fully succeed until the institutions surrounding commerce are re-designed.”*

#### 4. Honour market principles

“Let the free market decide” is a strong mantra of the current era. However, even some of those who have benefited greatly from their understanding of it, such as billionaire financier, George Soros (1997) argues that today’s market fever “undermines the very values on which open and democratic societies depend”. Hawken recognised that current market structures did not properly value non-renewable resources and eco-system services and notes that competitive well-informed markets are good at setting prices but incapable of determining ecological or environmental costs. He proposed market mechanisms, such as carbon taxes to reduce greenhouse gas emissions and other green taxes to ensure ecologically sustainable production processes and sees the role of governments as ensuring that businesses pay the “true costs”. Most governments have, however, made little progress in this direction. Australia has not signed the Kyoto Protocol, partly (or possibly mainly) due to pressure from the resource and coal lobby (Bulkeley 2000).

Hawken (1993), however, seems to contradict himself by stating, “ We can’t just ask people to pay more to save the planet. They won’t do in some cases – and can’t in most.” Most of the people in developed countries, including Australia and New Zealand, can afford to pay more to save the planet, without any significant hardship. Many people in underdeveloped countries can’t afford to pay more – but they do not consume much. We can help them save the planet by, for example, providing an ecologically sustainable way of life that does not force them to cut down forests just to survive.

Markets clearly do not price environmental services and recognise ecological limits (Daly and Farley 2004). The value of ecosystem services is estimated at between 4 and 5 times Gross World Product (GWP) in 2000 (Boumans, Costanza et al. 2002). Ecosystem services are not generally sold and business does not make profits from these ecosystem services, which are much more valuable and more irreplaceable than almost all marketed goods and services. In Australia, we do not know whether we are maintaining essential ecological processes and life support systems (Environment Australia 2002).

#### 5. Be more rewarding than our present way of life

Except for France, where the government has implemented work-time reduction, in most countries many of the full-time employees of businesses are working more hours than a decade ago, particularly those who are not paid or would not dare to ask to be paid overtime (Hayden 1999). In the developed world, we spend more, buy more stuff, consume more (become increasingly obese – even as children) and are no happier (Schor and Taylor 2002; Hamilton 2003; Layard 2003). Business wants to increase revenues by having us buy more goods and services – not improve the quality of our lives.

#### 6. Exceed sustainability by restoring degraded habitats/ecosystems to full biological capacity

Hawken (1993) states that:

*“We have also probably already passed the point where present planetary resources can be relied on to support the population of the next forty years.”*

It is proving difficult to get businesses to stop destroying habitats and ecosystems due to their desire not to change from business as usual. The idea of getting business to restore degraded habitats will require a radical redesign of our societal and business systems. This is discussed in much greater detail by Hawken (1993) but we seem to have made little or no progress towards this goal.

#### 7. Rely on current income

In this case, Hawken is referring to “natural income” – particularly the energy income available from natural, renewable sources (solar, wind etc). In order to do this he states that this will need:

*“redesigning of all industrial, residential, and transportation systems so that everything we use springs easily from the earth and returns back to it.”*

The Natural Step identified three ecological system conditions to achieve environmental/ecological sustainability (Robèrt 1997) which will be discussed in more detail later in the paper. The objectives for a sustainable “ecologically rational” business sector would therefore include ensuring that we met these system conditions.

As one of world’s and Australia’s leading futurists said Richard Slaughter said recently:

*“The most likely futures are pretty awful, scenarios that no sane person would wish to live in. This is based on continuing human impact on the global environment, not just global warming--which is bad enough--but the impact on other species, on wildlife extinctions, on soil loss or tropical forests.(Slaughter 2004)”*

This is a strong reminder that we are not living within our current income and are continually reducing the environment’s capacity to support the demands of future generations.

#### **8. Be fun and engaging, and strive for an aesthetic outcome**

Hawkins states, “government, business, and environmental organizations cannot create a sustainable society” but daily acts of eager citizens. Under our current system in the developed world our eager citizens borrow more money, to buy more stuff, to impress more people which consumes more resources and energy and business wants them to do this so it can make more profit (Princen, Maniates et al. 2002; Schor and Taylor 2002; Hamilton 2003). When the Business Council of Australia is promoting “downshifting”(Hamilton and Mail 2003), in order to achieve ecological and social sustainability, the business sector may then be fostering the necessary changes required to progress towards SD.

#### **Reasons for Lack of Progress by Business towards Sustainable Development**

Businesses were central to the creation of the technology and wealth that transformed society in the last two centuries. They provide most of the products and services that people consume. And they invent, design, develop and market those products and services, so that they shape market demand and the environmental impacts of consumption. The business community, along with the mass media and governments, has also helped to promote and affirm a culture that emphasises the core values of economic rationalism and consumerism: economic growth, markets, material prosperity, individual success, technological progress, and consumer choice. The problem is that businesses, particularly publicly owned

corporations, are locked into the current unsustainable system and without substantial changes to the system, business will not be constrained by ecological limits.

Hawken (1993) states: “ the ultimate purpose of business is not, or should not be, to make money.” Long-term growth of profits through developing and maintaining strategic competitiveness remains the primary focus for almost all major corporations (Hanson, Dowling et al. 2001). This is because the economic and financial systems within which these businesses operate require that there is focus not only on profits for shareholders but continual growth of profits to provide increases in the share price (Weston and Brigham 1975). The directors and management of these businesses are also focussed on growing profits because poor profit growth often leads to a company being taken over or, a change of Chief Executive and executive management by the Directors (Hanson, Dowling et al. 2001). If the business is taken over, job losses among the directors, staff and the management of that business are commonplace (Hanson, Dowling et al. 2001). Whilst these views are valid within the current paradigm, they do not address the urgent requirement for a shift in that paradigm to protect nature and the rights of future generations. This paper aims to demonstrate why that paradigm shift is urgently needed and begins to explore some pathways that might bring it about.

Most businesses do recognise that they have responsibilities to other stakeholders - employees, customers, suppliers, government, society etc (Hanson, Dowling et al. 2001) and some major businesses are reporting on a Triple Bottom Line - Economic (Profit/Financial), Social and Environmental (Elkington 1997; Global Reporting Initiative 2003). Under the current system within which corporations operate, considerations of these other stakeholders and other broader issues, such as ecologically and socially sustainable development however, will always tend to be a secondary issue for businesses due to the way the system currently operates requiring businesses, particularly publicly-owned corporations, to grow profits in order to survive.

The institutional framework within which these publicly owned corporations operate ensures that the primary focus is on profit and profit growth, even although the corporation may report a triple bottom line or place a major emphasis on corporate citizenship. One of the reasons for this is that the most intense

scrutiny of the corporation almost always comes from the financial market, through stockbroker and fund manager analysts. The primary focus of these analysts is current and future corporate profits. As they can (and do) have a significant influence on the major shareholders of the corporation, they reinforce the primacy of profits as an objective within any triple bottom line. Growth of profits is usually achieved through increasing revenues, which is much easier in an economy that is growing. Hence the outcome that corporations are a major societal influence encouraging economic growth as a continued social priority. This growth is also often accompanied by increased resource use, pollution and emissions. There is also pressure on business to continually reduce costs to increase profitability. Where this increase in profitability is achieved by dematerialisation or reduced energy usage, it will have some positive impact on ecological sustainability but where it is achieved by reduced labour input; it is likely to have an adverse impact on social sustainability. The triple bottom line, if it was a real triple bottom line with environmental and social issues being given equal or arguably more importance than profits could be compatible with some versions of what is referred to as the 3-pillars model of SD. The 3-pillars can represent economic growth, social and environmental development (WBCSD 2004). This paper will argue in a later section that particular version of this 3-pillars model of SD is preferred by the business sector in order to try to avoid the radical redesign of society that Hawken (1993) and others (Daly and Townsend 1993; Bossel 1998; Slaughter 2004) indicate is needed to progress towards SD. It will also argue in the next section that it is unsustainable for Economic Growth (growth of GNP and GWP as currently measured) to be one of the 3-pillars of SD.

## **Is Economic Growth compatible with Sustainable Development(SD)?**

*“Anyone who believes exponential growth can go on forever in a finite world is either a madman or an economist.” - Kenneth Boulding (1965)*

Economic Growth is defined as “an increase in the total output of a nation over time. Economic growth is usually defined as the annual rate of increase in a nation’s real GDP”. Nominal GDP is the value at current market prices, of the total final output produced inside a country during a given year. Real GDP is nominal GDP corrected for price inflation (Samuelson and Nordhaus 2001).

The key issue in relation to whether continued economic growth is compatible with SD, the main argument relates to whether we can continue to grow the total output without breaching ecological constraints in terms of sources of materials and sinks for waste and pollution.

In 1972, Donella Meadows was the lead author of “*The Limits to Growth*” which was one of the first books to question whether economic growth was unsustainable (Meadows 1972). One of its main conclusions was:

*“If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next 100 years. The most probable result will be a sudden and uncontrollable decline in both population and industrial capacity.”*

A subsequent book “*Beyond the Limits - Global Collapse or a Sustainable Future*” (Meadows, Meadows et al. 1992) puts the argument even more strongly that economic growth was endangering the ecological limits of the planet. It argued that that in spite of the world's improved technologies, the greater awareness, the stronger environment policies, many resource and pollution flows had already grown beyond their sustainable limits. It claimed that the human world is already beyond its limits and the present way of doing things is unsustainable. It also notes that:

*“our planet develops over time without growing. Our economy, a sub-system of the finite and non-growing earth, must eventually adapt to a similar pattern of development”.*

The recent work published on the Ecological Footprint (Wackernagel, Schulz et al. 2002) confirms this view and suggests that with current consumption patterns we reached the ecological carrying capacity of the earth in the 1970's and by 1999 exceeded its carrying capacity by 20%, an unsustainable level. Further economic growth is therefore going to make the situation even more unsustainable, as there is no significant evidence of substantial decoupling between economic growth and resource use and sink use(OECD 2002). Resource use, waste and greenhouse gas emissions are still increasing in most OECD countries, including Australia, albeit at a slightly slower rate than overall economic growth (OECD 2002). Despite this, in Australia and most developed countries, economic growth is still seen as a major social priority in the dominant construction of social reality, supported by all of the major political parties and relatively unquestioned by most institutions and other parts of society, particularly the business sector.

In addition there is strong evidence from Australia (The Australia Institute 2002; Hamilton 2003) and most other developed countries (Daly and Farley 2004) that increasing GNP has ceased to be a good measure of increasing human welfare for all developed countries since about 1980. It also does not increase happiness (Hamilton 2003; Layard 2003).

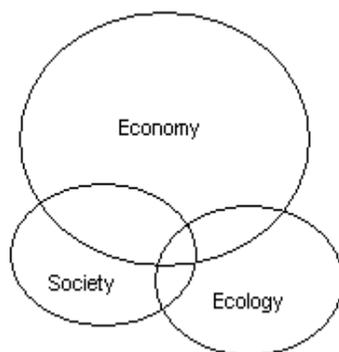
Daly has recognized the problem of “Uneconomic Growth”– where the environmental and social costs of economic growth are more than the benefits of increased output and the need for a “Steady-state economy”(Daly and Farley 2004) . In Australia and many developed countries, the evidence indicates that we are pursuing uneconomic growth or, put another way, unsustainable economic growth and we need to move to an ecologically sustainable steady-state economy, which meets the ecological system conditions outlined in a later section on Ecological Sustainability and the New Environmental Paradigm.

## Models to progress Sustainable Development

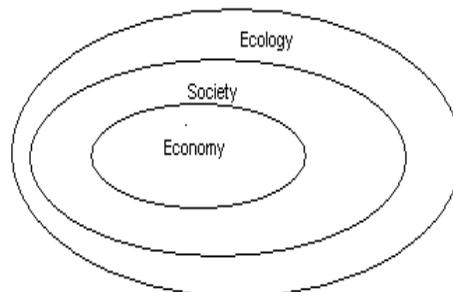
This section reviews briefly the 2 predominant models of sustainable development. These two models are illustrated in the following diagrams based on those included in the *1996 Australia: State of Environment Report*.

**Figure 1: Two Different Models of SD (State of the Environment Advisory Council 1996 Ch10 p12)**

**Three Pillars Model of SD**



**Nested System Model of ESD**



The *1996 Australia: State of Environment Report* describes the nested system model as

*“the decision making model needed for an ecologically sustainable future for Australia. It recognises that the economy is a sub-set of society, since many important aspects of society do not involve economic activity. Similarly, it acknowledges that human society is totally constrained by*

*the natural ecology of our planet. It requires integration of ecological thinking into all social and economic planning” (State of the Environment Advisory Council 1996).*

This raises the question of why given such a major respected report, endorsed by the Australian Government 8 years ago, indicates the need to move away from the 3-pillars model of SD to a nested system model to achieve progress toward SD, the dominant model of SD in Australia is the 3-pillars model. Environment Australia, in its 2002 report, *Are We Sustaining Australia*, continues with an approach consistent with the 3-pillars model (Environment Australia 2002; McGregor 2003).

## **SD Models, Dominant Social Paradigms and Worldviews**

What is SD? There are multiple definitions including the 2 quoted earlier in this paper. This question relates to what these definitions are trying to represent. They represent an author’s or speaker’s (often on behalf of an organisation) view of a preferred future social reality, in which case, there may be almost 6 billion views of what is sustainable development. Every thinking human on the planet can have a view of a future preferred social reality. In many developing countries, sustainable development may represent having enough food and basic shelter. My view, supported by the arguments and evidence given in this paper, is that SD requires a shift from the Dominant Social Paradigm(DSP) to a New Environmental Paradigm(NEP), as outlined by Milbrath(1994). The DSP represents the prevailing worldview, a problem that Richard Slaughter(Slaughter 1996) sums up extremely well:

*“For several decades evidence has been mounting that the worldview upon which the industrial system - and hence the entire modern world - is built, is defective. In earlier times critics of progress could be silenced or ignored. But that is no longer the case. With each passing year the global system is sending increasingly clear messages to humanity. The signals of stress and over-use suggest that we should moderate our collective impacts, develop a greater respect for natural systems and moderate industrial exploitation with long-term stewardship - all of which are easy to discuss but almost certainly impossible to achieve within a taken-for-granted industrial worldview.”*

## **Ecological Sustainability and the New Environmental Paradigm (NEP)**

The NEP represents a preferred worldview of a future society that is ecologically sustainable, which leads to the question of what is ecologically sustainable. Karl Hendrik Robert and colleagues have answered this question and the answer has been endorsed by leading scientists (Robèrt 1997).

They agree that the three ecological system conditions that a sustainable society would need to meet are:

- There is no increase in concentrations of substances extracted from the Earth's crust.
- There is no increase in concentrations of substances produced by society.
- There is no physical impoverishment by over-harvesting or other forms of ecosystem manipulation.

As most business executives and business academics know, organisational change is hard to achieve and major organisational change is even harder to achieve (Dunphy, Andrew et al. 2003). The foregoing suggests that major societal change is needed for SD is made even more difficult by the system within which the business sector operates, as outlined previously, and the resulting preference for an overlapping system model.

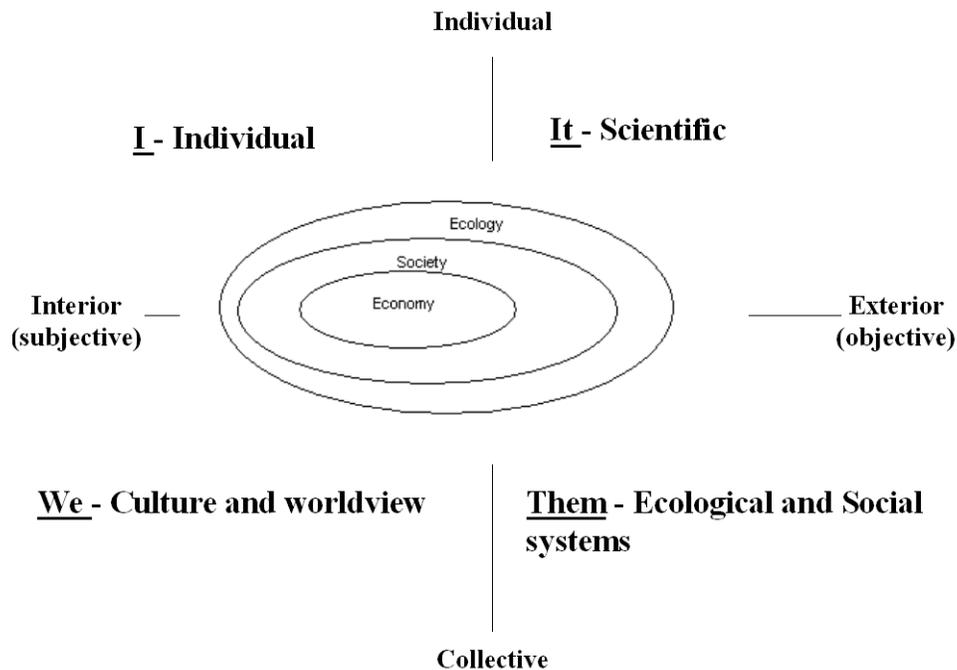
## **An Integral Approach to Ecologically Sustainable Development**

Resolving these extremely difficult issues involved in a major societal transformation is incredibly challenging. This may help explain why we have made so little progress towards Ecologically Sustainable Development in the 30 years since the DSP was challenged by *Limits to Growth* (Meadows 1972). In 2002, the Australian Government acknowledged that it was not clear “whether our economic development is safeguarding the welfare of future generations” and whether we are “maintaining essential ecological processes and life support systems (Environment Australia 2002)”. In other words, Australian society does not know whether it is meeting the stakeholder needs of future generations and the environment.

An integrated, holistic view is therefore needed for ecologically and socially sustainable development. A useful framework for taking this integrated, holistic approach has been developed by Ken Wilber in his Integral All Quadrants All Levels (AQAL) model (Wilber 2001). This model seeks to integrate the 4 quadrants of knowledge – the scientific, the systemic (the more objective parts of knowledge) with the

subjective parts of knowledge (personal and cultural). He proposes a model of development that seeks to include more people at each level of development, however, this model of development is primarily focused on personal and social development with a basic requirement in line with the 4<sup>th</sup> system condition of the Natural Step Model that “resources are used fairly and efficiently in order to meet basic human needs worldwide” (Robert, Schmidt-Bleek et al. 2002). This model is shown below:

**Figure 2 - Four perspectives on Sustainable Development - Source: Adapted from Figure 3.1 in Wilber (2001) and Chris Reidy’s Unpublished PhD thesis (Riedy 2004) and Figure 1 above**



## Conclusions and Recommendations

For the reasons outlined in this paper, it is almost impossible for the business to make the required progress towards Ecologically Sustainable Development because their leaders are severely constrained by the systems within Dominant Social Paradigm (DSP) and the dominant worldview in the business sector. This worldview that predominates is that the DSP can continue and still achieve Sustainable Development. This paper aimed to demonstrate that major changes are required at the societal level to move from the current unsustainable Dominant Social Paradigm to a sustainable New Environmental Paradigm. The dominant culture in Australasian and developed countries associates happiness with growing disposable income and increased consumption, reinforced by billions of dollars of

advertising (Hamilton 2003). However, as discussed previously there is strong and increasing evidence that beyond a certain level (already exceeded by developed countries) increased consumption resulting in increased per capita GDP does not make us happier or increase societal welfare. Government, business, other organisations and society still remain reluctant to commence the necessary and urgently required shift from the current Dominant Social Paradigm to the New Environmental Paradigm required for Ecologically Sustainable Development. Because moving to an Integral Model of Sustainable Development will involve massive societal change, it will be far from easy but I suggest that it is the most critical and urgent societal priority which governments, business, other organisations and you and I should focus on.

I will leave you with a unacademic quote from the Lorax by Dr Seuss:

*“Unless someone like you cares a whole lot,  
Nothing is going to get better,  
It’s not.”*

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