Product stewardship: institutionalising corporate responsibility for packaging in Australia

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Helen Lewis

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Abbreviations

ACA	Australian Consumers Association
ACF	Australian Conservation Foundation
ACT	Australian Capital Territory
ADF	Advance disposal fee
AEC	Australian Environment Council
AFGC	Australian Food and Grocery Council
AIG	Australian Industry Group
AKRA	Australian Kerbside Recycling Alliance
ALC	Association of Liquidpaperboard Carton Manufacturers
ALGA	Australian Local Government Association
ANRA	Australian National Retailers Association
ANZEC	Australia and New Zealand Environment Council (replaced AEC)
ANZECC	Australia and New Zealand Environment and Conservation Council (replaced ANZEC)
ARA	Australian Retailers Association
ASI	Australian Supermarket Institute
BIEC	Beverage Industry Environment Council (replaced LRRA)
BRBA	Buy Recycled Business Alliance
CDL	Container deposit legislation
CSP	Corporate social performance
CSR	Corporate social responsibility
DEH	Department of Environment and Heritage
DFE	Design for environment
DSD	Duales System Deutschland
ECoPP	Environmental Code of Practice for Packaging
EMS	Environmental management system
ENGO	Environmental non-government organisation
EPA	Environmental Protection Authority
EPHC	Environment Protection and Heritage Council
EPR	Extended producer responsibility
ESD	Ecologically sustainable development
EU	European Union
FOE	Friends of the Earth

GHG	Greenhouse gas
GMA	Grocery Manufacturers Association
HDPE	High density polyethylene
IWRA	Industry Waste Reduction Agreement (Victoria)
IWRP	Industry Waste Reduction Plan (NSW)
KAB	Keep Australia Beautiful
KPI	Key Performance Indicator
LCA	Life cycle assessment
LGANT	Local Government Association of the Northern Territory
LGAQ	Local Government Association of Queensland
LGASA	Local Government Association of South Australia
LGAT	Local Government Association of Tasmania
LGAWA	Local Government Association of Western Australia
LGSA	Local Government and Shires Association (NSW)
LRA	Litter Research Association
LRRA	Litter Research and Recycling Association (replaced LRA)
MAV	Municipal Association of Victoria
MBI	Market based instrument
NARGA	National Association of Retailer Grocers of Australia
NCC	Nature Conservation Council
NEPM	National Environment Protection Measure
NGO	Non-government organisation
NPA	National Packaging Association
NPC	National Packaging Covenant
NPC Mark I	National Packaging Covenant 1999–2005
NPC Mark II	National Packaging Covenant 2005–2010
NPCC	National Packaging Covenant Council
NPCIA	National Packaging Covenant Industry Association
NPD	New product development
NRA	National Retailers Association
NREC	Natural Resources and Environment Committee (Victorian Parliament)
NT	Northern Territory
NZ	New Zealand
PACIA	Plastics and Chemicals Industries Association
PCA	Packaging Council of Australia (replaced NPA)
PEFA	Packaging Environment Foundation of Australia

PIA	Plastics Industry Association
PIEC	Packaging Industry Environment Council
POEMS	Product oriented environmental management system
PS	Product stewardship
PSF	Product Stewardship Forum
PSG	Packaging Stewardship Group
PVC	Polyvinyl chloride
Qld	Queensland
RALAC	Recycling and Litter Advisory Committee
SA	South Australia
Tas	Tasmania
TEC	Total Environment Centre
TNC	Transnational corporation
UK	United Kingdom
US	United States
VEA	Voluntary environmental agreement
Vic.	Victoria
WHEN	Worldwide Home Environmentalists' Network
WMAA	Waste Management Association of Australia

Abstract

This research investigates the responsiveness of companies in the Australian packaging supply chain to stakeholder concerns about the environmental impacts of packaging. Packaging has been identified as an environmental policy issue in Australia since non-refillable beverage containers were introduced in the late 1960s and early 1970s. A national approach to the 'co-regulation' of packaging—the National Packaging Covenant (NPC)—was introduced in 1999. This is based on the principle of shared responsibility for the 'life cycle' environmental impacts of packaging, which is commonly referred to as 'product stewardship' (PS).

The primary focus of the thesis is corporate environmental policies and practices, but within a broader institutional framework. The institutionalisation of PS as a relatively new framework for corporate behaviour is occurring within an 'organisational field' at several levels. At the broadest (macro) level it is being institutionalised through the interaction of the state, industry associations and environmental non-government organisations (ENGOs) in policy processes. Within the packaging supply chain (meso level) it is being institutionalised through changes to corporate policy and practice within different sectors of the packaging supply chain, including raw material suppliers, packaging manufacturers, product manufacturers (brand owners) and retailers. Within individual firms (micro level) PS is being institutionalised through the interaction of functional groups with different interests, allegiances and stakeholders.

Four aspects of PS are considered at each of these levels:

- the role of interest groups, both internal and external to the firm;

- the discourses invoked by interest groups to promote their policy beliefs;

- policies and policy processes;

- the influence of company characteristics such as industry sector, size, ownership and head office location on corporate responsiveness.

The research begins with an analysis of the social and political factors that have shaped Australian public policies and expectations about corporate social responsibility for packaging. In contrast to Europe, where the emphasis has been on 'extended producer responsibility' (EPR) for waste, most jurisdictions in Australia have chosen to work cooperatively with industry associations through voluntary agreements. This approach was formalised in the 1990s with the introduction of the NPC, which focuses on the 'life cycle'

environmental impacts of packaging rather than just waste management. This occurred despite continuing campaigns by ENGOs for the introduction of container deposit legislation or some form of EPR regulation. The institutionalisation of PS as the solution to the perceived 'packaging problem' is linked to the relative power of the industry coalition in policy negotiations and the deregulatory approach to policy making within federal and state governments.

Within this environment, companies have sought to maintain or enhance organisational legitimacy by developing policies and practices that institutionalise PS at a corporate level, i.e. in the way they do business. The responsiveness of companies in different industry sectors is evaluated by examining the PS policies and practices of 30 large companies in the Australian packaging supply chain. Information for the evaluation is gathered from corporate reports and web sites, supported by interviews with company representatives to gain a deeper understanding of corporate motivations and decision-making processes.

The results show that companies in every part of the supply chain are acting to reduce the environmental impacts of packaging, but most are only doing the minimum required to meet public expectations. The research also found a significant gap between the performance of the beverage and packaging manufacturers and retailers. This reflects, at least in part, the fact that beverage and packaging manufacturers have a longer history of exposure to interest group pressure on this issue. Decision-making within individual companies is also driven by corporate policies on environmental and social responsibility, which in turn appear to be linked to industry sector, company size and country of origin.

Most companies are focusing on strategies which achieve both environmental and financial savings, such as the 'lightweighting' of packaging, rather than litter reduction programs or 'design for recycling'. This reflects the competitive nature of the industry and the pressure being imposed on companies, by their customers, to reduce supply chain costs. It is also consistent with the voluntary and flexible nature of the NPC, which allows individual companies to choose strategies that support other business objectives. However, while this approach is likely to achieve incremental improvements, it may not meet the expectations of some government agencies and ENGOs for more rapid and substantial reductions in packaging waste. Companies in the packaging supply chain face a continuing challenge to maintain their legitimacy in the face of ongoing stakeholder concerns about their products.

Chapter 1

Introduction

> *Packaging is barely perceptible as a commodity; its limited use-life and its pre-determined fate as waste have become acceptable on a cultural level. Yet it contains natural resources and human labor—and produces profit—like any other manufactured good (Rogers, 2007, p. 116).*

Packaging as a social 'problem'

Packaging may be 'barely perceptible' as a commodity but it has become highly visible as an environmental problem in Australia. This has prompted extended and often contentious debates about the nature of the problem, its underlying causes and corporate responsibility for addressing it. Similar debates have occurred about the social impacts of business activity in areas as diverse as product safety, industrial pollution, treatment of suppliers and employment conditions. Packaging is therefore just one of many issues being addressed by companies and policy makers under the general rubric of corporate social responsibility (CSR).

Debates about the social responsibilities of business began in many developed countries during the first half of the twentieth century in response to public concerns about the increasing size and power of corporations. They became more intense in the 1960s when the emergence of powerful social movements appeared to threaten the very foundations of capitalism. These movements were informed by influential writers on consumerism, product safety and the environment, including John Kenneth Galbraith (1958), Ralph Nader (1965) and Rachel Carson (1962) respectively. Vance Packard's book *The Waste Makers* (1960) focused on the negative impacts of 'disposable' and short-life products, a theme picked up ten years later by Alvin Toffler (1970) when he coined the term 'throw-away society'.

It is now generally recognised that companies bear some responsibility for their environmental impacts, but the specific issues of concern have changed over time. While concerns about pesticide pollution were prominent in the 1960s, resource depletion dominated environmental discourses in the early 1970s (Hajer, 1995b). This was

prompted in part by the gloomy predictions of the Club of Rome in their book *Limits to Growth* (Meadows *et al.*, 1972). One of the industries targeted by environmental non-government organisations (ENGOs) during this period was the packaging industry, which was experiencing a period of rapid technological change. A particular concern was the replacement of refillable beverage bottles with single-use bottles in the 1970s, making them a highly visible component of household waste and litter (Ackerman, 1997). In many jurisdictions around the world governments responded by introducing 'bottle bills' or 'container deposit legislation' (CDL), which requires beverage manufacturers to charge a redeemable deposit on bottles. South Australia (SA) was the only Australian jurisdiction to introduce CDL, in 1975.

In 1971 Australians consumed around 1.5 million tonnes of packaging per year (AEC, 1979) but by 2007 this had increased to 4.3 million tonnes (NPCC, 2008c). On a per capita basis this is equivalent to an increase of around 70%, from 118 kilograms per person to 201 kilograms per person each year[1]. Refillable bottles for milk, beer and soft drinks have all but disappeared and a number of economic, social and cultural changes have contributed to increased packaging in other areas. These include the development of new packaging technologies, the growth of large, self-service retail stores (particularly supermarkets) at the expense of smaller stores, higher incomes, increased participation of women in the workforce, smaller households, a trend to more casual dining patterns and a perception that time is scarce, all of which have increased demand for convenient, pre-packaged foods (Godbey *et al.*, 1998; Holmes and Poore, 1993; Lox, 1992; Mander, 2000). Lox (1992, p. 15) has claimed that 'our way of living, marketing and distribution systems could not exist without packaging', while the Packaging Council of Australia has declared it to be 'essential in contemporary Australian society' (Frost, 2005). Its benefits include protecting the product from damage, spoilage and loss during distribution, attracting attention and communicating the features of a product to consumers, and providing convenient handling and storage for both suppliers and consumers (Prendergast and Pitt, 1996). However, ENGOs remain concerned about its contribution to increasing levels of consumption, design for 'disposability' rather than reuse, the consequent increase in the amount of packaging being disposed of in household waste, and the high visibility of packaging in the litter stream. It has been estimated that 56% of packaging is recycled

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[1] Based on population statistics from ABS (2008).

after use (NPCC, 2008b), but many ENGOs believe that companies in the packaging supply chain should do much more to reduce its environmental impacts.

During the 1980s governments in many developed countries, including Australia, started to take a new approach to environmental management which emphasised anticipatory action to address environmental impacts at source, for example through 'cleaner production' and 'design for environment' (DFE) programs. Increasingly, companies were being encouraged to integrate environmental concerns in business decision-making processes (Hajer, 1995b). Germany was the first country to make producers legally responsible for the recovery of used consumer packaging—a concept known as 'extended producer responsibility' (EPR)—and other European countries followed their lead. In contrast, Australia chose to pursue a voluntary approach based on 'product stewardship' (PS). This is the principle that manufacturers have a responsibility to minimise the 'life cycle' environmental impacts of their products, a responsibility shared with their supply-chain partners and government. This principle is embodied in the National Packaging Covenant (NPC), a voluntary agreement between companies in the packaging supply chain and all levels of government. The first Covenant ('NPC Mark I') was signed on 2 July 1999 for a five-year period (1999–2004), and was underpinned by a regulatory framework, the National Environment Protection Measure (NEPM) for Used Packaging Materials. The NEPM was designed to regulate brand owners who do not sign the NPC or who fail to meet its minimum requirements. In 2005 the NPC was renegotiated and extended for another five years to 2010. The new Covenant ('NPC Mark II') included, for the first time, overarching and material-specific recovery targets; a detailed list of performance indicators; and more stringent reporting requirements (NPCC, 2005). These changes were introduced in response to research that found that industry commitment to the NPC was highly variable and that a lack of performance data made any evaluation of environmental outcomes almost impossible (Meinhardt, 2004; Nolan-ITU, 2004; White *et al.*, 2004). Some local government organisations and ENGOs have continued to argue that the NPC is not delivering significant environmental benefits and should be replaced by a more regulated approach such as CDL, advance disposal fees or mandatory recycling rates (e.g. Angel, 2004; Boomerang Alliance, 2006a; Environment Victoria, 2007b; LGSA, 2006).

NPC Mark II included a requirement for a comprehensive and independent mid-term review by December 2008. It also stated that unless the review found evidence of significant progress towards the NPC's overarching targets, then alternative policy options might be considered to replace the NPC after it expires in 2010 (NPCC, 2005). The mid-term review in 2008 concluded that, while significant progress *has* been made towards the achievement of the NPC's waste reduction and recycling targets, it is difficult to know how much of this progress has been driven by changes to corporate policy and practice (Lewis, 2008). Other factors, such as the strong demand for recyclable materials in export markets, have also been influential in driving up recycling rates (Hyder Consulting, 2008a). Falling export demand in early 2009, resulting in stockpiles of some packaging materials in Australia, suggests that future progress will need to rely more on the efforts of companies and other stakeholders in Australia to reduce waste and increased local demand for recyclable materials.

Research undertaken for the mid-term review concluded that corporate responsiveness to the NPC has been mixed (Verghese *et al.*, 2008), but did not provide any possible explanation for compliance and 'beyond compliance' behaviour. More research is needed to provide a deeper understanding of current PS strategies within the packaging supply chain, and how public policy can be used more effectively to improve the environmental sustainability of packaging through changes in corporate behaviour.

Research questions

This thesis aims to explore the responsiveness of companies in the Australian packaging supply chain to PS within the context of broader socio-political processes that define the economic, legal and social responsibilities of companies. The primary research question is:

How, and to what extent, has product stewardship been institutionalised within the Australian packaging supply chain?

This is explored by addressing three secondary questions:

1. How have discursive and public policy processes shaped expectations about corporate environmental responsibilities for packaging, as well as corporate responsiveness?

2. How and to what extent is product stewardship being institutionalised by companies in different sectors of the packaging supply chain, particularly raw material suppliers, packaging manufacturers, brand owners and retailers?

3. How and why are individual companies implementing product stewardship?

The results of the research responding to these questions will have implications for the development of public policy to manage the environmental impacts of packaging and other products. In particular, it will contribute to a greater understanding of environmental responsiveness by extending policy considerations more explicitly to the importance of institutional frameworks and drivers.

Methodological considerations

Theoretical perspectives

The thesis draws insights from different theoretical perspectives within an institutional framework. An institutional approach considers corporate behaviour in the context of the economic, legal and social systems within which companies operate.

There has been little empirical or theoretical investigation of PS. Most of the research has focused on guidelines for development of EPR programs (e.g. OECD, 2001; 2005) and evaluation of specific PS and EPR policies (e.g. Bailey, 2003; Sinclair, 2000). There has been only limited analysis of voluntary corporate initiatives related to packaging. There has been some research, based on a corporate social performance (CSP) framework, on corporate responsiveness to environmental issues in the packaging industry in Canada (Labatt, 1997). According to the CSP perspective, PS could potentially be understood by examining the relevant social issue (in this case the 'packaging problem'), corporate responsibilities and corporate responsiveness (e.g. Carroll, 1979; Labatt, 1991; Wood, 1991). Responsiveness can be measured by examining corporate policies and programs as well as their social outcomes (Wood, 1991).

However, the conventional CSP approach has important limitations. It provides little insight into decision-making processes within firms which influence corporate responsiveness. Labatt (1997, p. 88) has suggested that the CSP framework could be usefully combined with stakeholder theory and organisational theory, because knowing

more about how and why companies comply with voluntary initiatives is 'essential to the formulation of effective public policies'.

CSP models developed within a managerialist paradigm also fail to explain how a 'social issue' emerges and becomes a corporate responsibility. This problem has been partly addressed by research on stakeholder theory, which asserts that companies respond to the expectations of organisations which can affect, or are affected by, corporate activities, rather than vague ideas of corporate responsibility (e.g. Donaldson and Preston, 1995; Jones, 1995; Jones and Wicks, 1999; Mitchell *et al.*, 1997). However, stakeholder theory does not account for interaction *between* stakeholders and their relative power and influence at a socio-political level. This is where social problems are defined and where public policies, which help to shape stakeholder expectations about corporate behaviour, are developed. Different views on the packaging problem and policy solutions in Australia have evolved in response to the claims of competing policy coalitions. An 'argumentative' or discursive approach to policy analysis (Fischer, 2003; Hajer, 1993) can be used to highlight the role of policy coalitions and discourse in the construction and maintenance of a new institution. In trying to reach a negotiated outcome, interest groups within policy coalitions engage in a process of 'discursive struggle' involving competing narratives about packaging, waste, litter and corporate responsibility to support their interests and policy beliefs.

The thesis therefore takes a social constructivist approach by assuming that 'multiple realities are constructed in social action through the organising properties of communicating and particularly through the agency of language' (Aggestam and Keenan, 2007, p. 432). The analytical framework, which is based on an institutional approach, recognises the importance of social structures, relationships and dominant discourses in guiding organisational behaviour. 'New institutional theory' asserts that organisational behaviour is guided by rules, customs and other institutions which become 'taken-for-granted' and are important in protecting organisational legitimacy (e.g. DiMaggio and Powell, 1991b; Meyer and Rowan, 1992).

From this perspective, PS can be regarded as a new framework for action which has evolved in response to changing social values and expectations about the environmental management of products. It is therefore important to approach the primary research

question at several levels of abstraction by considering the 'messy practices of everyday life' within a larger institutional context (Hudson, 2004, p. 452). While the main focus of the research is on the behaviour of companies ('corporate responsiveness'), attention is also paid to the way that this behaviour is shaped by the social construction of a 'policy problem' and perceptions of 'corporate social responsibility' for this problem (Figure 1). Companies change their behaviour in response to policy problems that are perceived to be a corporate responsibility, and over time this behaviour becomes institutionalised through discourses, policies and practices at several levels.

Figure 1: The institutionalisation of a corporate social responsibility
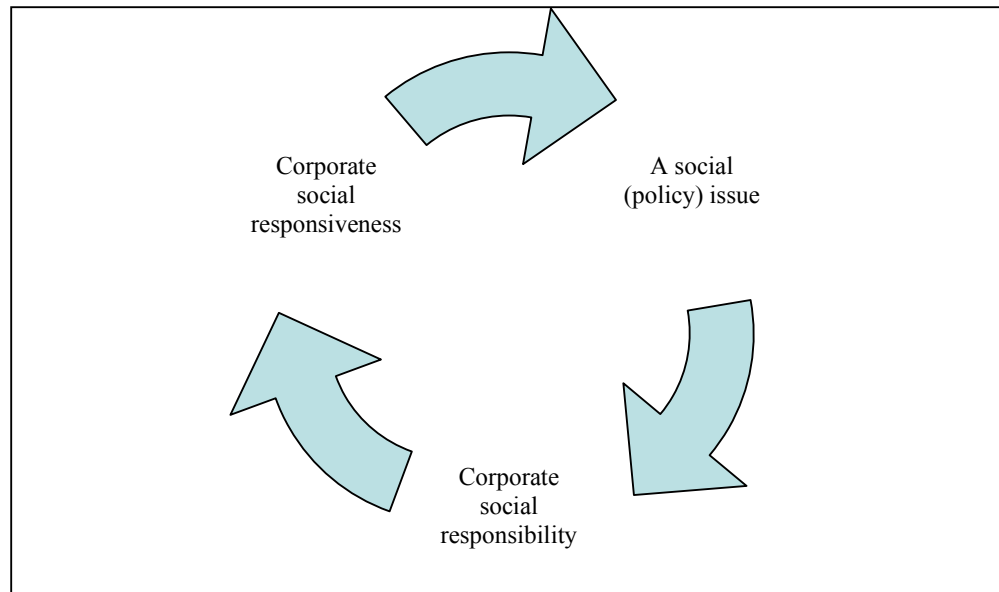
The secondary research questions establish three levels of analysis for researching the PS institution:

- *The first question*, 'How have discursive and public policy processes shaped expectations about corporate environmental responsibilities for packaging as well as corporate responsiveness?', focuses attention on the socio-political (macro) level where PS is being institutionalised through the interaction of the state, industry associations and ENGOs in policy processes.

- *The second question*, 'How and to what extent is product stewardship being institutionalised by companies in different sectors of the packaging supply chain,

particularly raw material suppliers, packaging manufacturers, brand owners and retailers?', focuses attention on the industry (meso) level where PS is being institutionalised through changes to corporate policy and practice.

- *The third question*, 'How and why are individual companies implementing product stewardship?', focuses attention on the company (micro) level where competing interests and objectives for products are resolved by institutionalising PS in business control systems.

Each question is answered by examining four interrelated themes relevant to the PS institution:

- *interest groups* involved in shaping or implementing PS;

- *discourses* about the packaging problem and corporate responsibility;

- *policies and policy processes* that are putting PS into practice;

- *company characteristics* that influence corporate responsiveness to institutional pressure.

Scope

Three points can be made about the scope of the thesis. The first and perhaps most critical of these concerns the definition of corporate responsibilities for packaging. This is highly contested and is explored in some detail in Chapter 4. The definition used as the basis of the analysis in chapters 5 and 6 takes PS at face value, i.e. as a framework for the environmental management of packaging over its entire life cycle and not just when it becomes a 'waste' product. The life cycle metaphor is generally used to refer to impacts during the extraction or harvesting of raw materials, manufacturing, transport, consumption and disposal or recycling of packaging (Figure 2), although the literature on PS is often vague about the specific responsibilities implied by a life cycle approach. An alternative definition of corporate responsibility, which is based on the principle of 'extended producer responsibility' and tries to intervene through more targeted waste management policies, is advocated by ENGOs and some local government associations. However, PS underpins the NPC and is therefore considered an appropriate starting point for the analysis of corporate performance.

Figure 2: The packaging life cycle
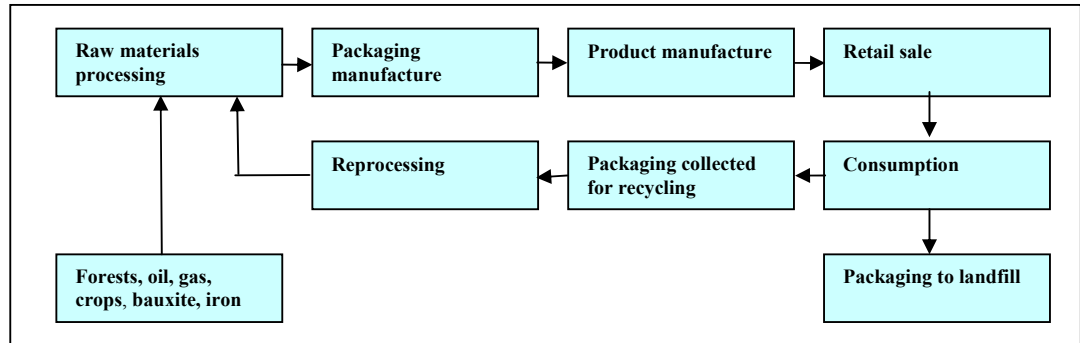
The second point relates to the target population of companies, which is defined here as the 'packaging supply chain'. This refers to all of the industry sectors involved in making, using or selling packaging, including raw material suppliers, packaging manufacturers, manufacturers of products distributed or sold in packaging ('brand owners'), and retailers. The reason for this is that PS is generally defined as a 'shared responsibility' of all sectors in a supply chain, and the NPC states that 'consequent on [the principle of product stewardship], all participants in the packaging chain—raw material suppliers, designers, packaging manufacturers, packaging users, retailers, consumers, all spheres of government, collection agencies—accept responsibility for the environmental impacts associated with their sphere of activity' (ANZECC, 1999, pp. 4–5).

The third point relates to the time period during which the PS performance of companies is studied. Because there were some important changes to corporate responsibilities when the NPC was renegotiated for a second five-year period (2005–2010), the evaluation of policies and practices in Chapter 5 is based on documents that were published during the period of NPC Mark I (1999–2005).

Research methods

The research uses semi-structured interviews and content analysis of public documents to, first, investigate institutionalising processes at a socio-political level and, second, to evaluate the implementation of PS policies and practices within the supply chain and individual firms. The investigation of corporate policies and practices is based on a multiple case study design.

The research investigates the 'packaging problem' and its implications for corporate responsibility by drawing on written documents as well as the views and recollections of people involved in historical policy debates about packaging and the environment. Documents which have been reviewed include government reports, policy statements, internal memoranda and media releases; and statements by stakeholder groups in newsletters, trade journals, newspapers and other media. These provide a record of policy processes and policy outcomes at particular points in time which allow an historical account to be developed. Documents were also 'deconstructed' (Forbes, 2000) in order to identify the narratives or 'story-lines' employed by different groups and the underlying beliefs on which these were based.

Interviews are also useful for studying past events (Taylor and Bogdan, 1998) and the documentary analysis was therefore supported by semi-structured interviews with people who had previously worked, or currently work, on packaging policy for industry associations, companies, government agencies or ENGOs. Open-ended interview questions were used to encourage participants to describe and explain their professional experiences in detail. Participants not only reveal their own views but act as 'informants' by describing what happened and how others viewed it (Taylor and Bogdan, 1998, p. 89). Interviews were conducted on the basis that their identity and organisation would not be revealed, so individuals are identified throughout the thesis by the type of organisation they work for (a full list is provided in Appendix 1).

The evaluation of corporate policies and practices and their implementation within individual firms also relied on documentary analysis and semi-structured interviews. Thirty companies were selected to investigate the responsiveness of the companies in the Australian packaging supply chain to PS. A full list is provided in Appendix 2. A case study approach focuses on individual examples rather than a broad spectrum of the subjects (Jones, 2006). The largest companies in each sector of the packaging supply chain were included for two reasons. First, they are likely to provide the best insights into packaging stewardship in Australia because of their size and market power—the largest thirty companies account for almost 90% of turnover in the packaging supply chain[2].

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[2] They had combined annual sales of $132.9 billion in 2005 (Appendix 2), compared to the estimated sales of all NPC signatories in 2003 of $150 billion (Nolan-ITU, 2004).

From a normative perspective, a number of writers have also argued that corporate social responsibility is linked to size and power[3].

Some companies, while not necessarily among the largest, were added to deepen the analysis by providing a cross-section of companies by sector, location of head office and ownership. The case studies include companies from the four broad sectors that make up the supply chain (raw material suppliers, packaging manufacturers, brand owners and retailers), with a particularly high representation from brand owners. Brand owners 'fill' packaging with product and not only make up the majority of companies in the supply chain, but also tend to make the marketing decisions which drive packaging design. Around 65–70% of packaging in Australia is used in the manufacture of food and beverages (Frost, 2005) so most of the case studies in the brand owner category were selected from these sectors. However, a few brandowners were also selected from other sectors: building products (Dulux), appliances (Fisher & Paykel) and consumer electronics (IBM). Some companies were selected to represent particular head office locations. For example, while Huhtamaki's sales revenue in Australia is relatively small, it is the largest packaging manufacturer in Europe. Others were chosen to represent different forms of ownership, and the sample includes public corporations, family-owned companies, joint ventures and a cooperative.

The implementation of PS within industry sectors and individual companies was analysed by focusing on governance systems (policies and practices) required to implement PS rather than the environmental outcomes of these policies and practices[4]. A PS responsiveness framework was developed by:

- identifying seventeen indicators of PS policy and practice;

- grouping these indicators into broad functional areas within the firm (Figure 3);

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[3] For example, Davis (1960) argued that the social responsibilities of a business are commensurate with their power. In a similar vein, Windsor (2001, p. 49) proposed that '[t]he more powerful and wealthy the firm, the greater that firm's responsibilities to neighbours and the community must be'.

[4] Environmental outcomes ideally would be included in a company's sustainability report using indicators such as 'significant environmental impacts of principal products and services' and 'percentage of the weight of products sold that is reclaimable at the end of the products' useful life and the percentage that is actually reclaimed' (GRI, 2002, p. 50).

- developing a scoring system which rates corporate performance against each indicator on a scale of 0 to 3, from 'defensive' to 'proactive' (Table 1)[5].

Figure 3: Evaluation framework for PS policy and practice

Packaging stewardship policies and practices

Business function

Management
- Product stewardship policy and objectives
- Resource allocation
- Product-oriented EMS
- Product-based accounting
- Product stewardship reporting

Product development
- Environmental assessment of products
- Research and development
- Design for environment
- Procurement

Operations
- Cleaner production
- Recycling of commercial and industrial waste

Marketing
- Environmental marketing strategies
- Product labelling

Corporate affairs / environment
- Product recovery
- Litter management
- Voluntary environmental programs
- Consultation and communication

Table 1: A guide to responsiveness scores

Score	Description
0	Defensive: do nothing or be in denial
1	Compliant: do the minimum required to maintain a good public image
2	Progressive: approach issues with a desire to improve social conditions
3	Proactive: anticipate; be a leader in advancing social conditions

[5] The first version of the framework was published in Lewis (2006).

Labatt's (1991) classification of 'appeasement' (the minimum required to maintain a good public image) is referred to here as 'compliant' and is linked to either the minimum requirements of NPC Mark I or another recognised environmental management standard. The score for 'proactive' performance is intended to reflect industry 'best practice', i.e. it is only being implemented by a few industry leaders. Guidelines were developed to assist with the evaluation of corporate reports.

Documents used for this part of the evaluation were published between 1999 and 2005, including all NPC action plans and reports[6], corporate annual reports, environmental or sustainability reports and environmental statements on company web sites. These were used to identify the presence or absence of particular policies and practices and the extent to which they have been implemented. For companies that are subsidiaries of global companies based overseas, emphasis was placed on documents published by the Australian subsidiary. Some corporate-level publications were also reviewed where these apply to global operations, including CSR or sustainability reports, environmental policies and relevant sections of corporate web sites. However, the analysis focused on the policies and practices being implemented within Australian-based operations.

This analysis of published documents was supported by interviews with current and previous employees of the case study companies, with interviewees selected to represent a range of sectors and functional roles within their respective organisations. Interviewees were drawn from a smaller sample than the one used for the meso-level analysis (i.e. fourteen companies from the total sample of thirty) because the purpose of the interviews was to investigate drivers and relationships within individual firms. The selective sample was considered to be appropriate and adequate for this purpose. A decision was also taken to use direct quotes from interviewees to illustrate key points—allowing people to speak in their own words—rather than trying to interpret the data through an extension of the evaluation framework. Direct quotes provide rich insights that complement and build on the quantitative evaluation of corporate reports.

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[6] Under NPC Mark I all signatories were required to prepare action plans and to report to the NPC Council annually on performance.

These research methods have both strengths and weaknesses. The case study approach restricted the number of companies that could be evaluated, but allowed for more exploratory investigation through the two research methods (content analysis and semi-structured interviews). The main criticism of the case study approach is that it limits the ability to generalise the results (Jones, 2006). However, the aim here is not to use the case studies to draw definitive conclusions about the packaging supply chain as a whole, but rather 'to develop rich contextual data from which *generalisation to theory* becomes possible' (Bryman and Burgess, 1999, p. xiv, emphasis in original; also see Eisenhardt, 1989; Yin, 1994). The selection of cases was based on 'replication logic'. Each case (company) was selected because it either 'predicts similar results (a *literal replication*) or produces contrasting results but for predictable reasons (a *theoretical replication*)' (Yin, 1994, p. 46, emphasis in original). Most of the case studies were deliberately selected because of their relatively large size by turnover, and are therefore not representative of all companies in the supply chain. However, collectively they account for the majority of packaging manufactured and consumed in Australia and include companies from all of the key sectors. It is therefore legitimate to reach conclusions, based on these case studies, about the institutionalisation of PS within the packaging supply chain.

A broader industry survey, for example through the use of a self-administered written questionnaire, might have generated more representative, quantitative results, but the complexities and ambiguities involved in the PS institution would have limited its value. By focusing on a relatively small number of examples, the case study approach allows the researcher to 'deal with the subtleties and intricacies of complex social situations', to examine relationships and social processes in a more holistic way, and to use a variety of research methods (Jones, 2006, p. 317). Case studies are particularly useful in the early stages of research or where existing theory seems inadequate (Eisenhardt, 1989). Very little academic research has been undertaken on PS, or on links between PS and broader CSR theory. The thesis therefore combines theory-*testing* with theory-*building*.

Semi-structured interviews were used because they are flexible and dynamic, allowing the researcher to understand the ideas, thoughts and experiences of interviewees as expressed in their own words (Taylor and Bogdan, 1998; Reinharz and Davidman, 1992). The interviews included some open-ended questions which allowed for free interaction between the researcher and the interviewee, providing opportunities for clarification and

discussion. They were particularly useful in revealing personal and organisational motivations and actions generally excluded from official accounts in public documents.

The analysis of corporate reports provided useful data on the policies and practices of individual firms, but has both benefits and limitations. The main benefit is that most reports are readily available on the internet and provide a substantial amount of information on corporate policies and practices. Other researchers have used content analysis of annual reports to examine management strategies (e.g. Bowman, 1984) and the relationship between disclosures about CSR and actual performance (Pava and Krausz, 1995). Bowman found that annual reports provide a reasonable surrogate for reality, particularly given that chief executive officers tend to play a major role in the design of content and final editing. He noted that because they are written primarily for shareholders, 'one should not expect unusual puffery on issues like corporate social responsibility' (p. 63). Pava and Krausz (1995) concluded that there is a positive correlation between actual performance and disclosure of CSR activities in annual reports. However, it should be noted that these findings relate to corporate annual reports and may not apply to the same extent to other publications such as web sites and NPC reports. An important limitation of published documents used for this research is that they may not contain information on all relevant policies and practices, and the information may not be entirely accurate (for example claims about PS activities may be exaggerated). Finally, the rating system developed for each PS indicator was based on an understanding of NPC requirements and stakeholder expectations and a review of the environmental management literature, but is inherently subjective.

Ethical issues

The quantitative analysis of corporate performance and the discussion of corporate framing techniques in Chapter 5 refer to company names. The ethical implications of disclosure were considered, in particular the potential for disclosure to cause harm to the companies involved. The risk of harm is considered to be minimal for the following reasons:

- the quantitative analysis of performance is based entirely on documents which are already in the public domain;

- all of the documents were published by the companies themselves to promote their environmental and/or PS initiatives, and it is therefore reasonable to use these to evaluate corporate performance against existing community standards; and

- while the 'non-compliant' rating given to some individual companies may pose a very small risk to corporate reputation, the companies are all signatories to the NPC and are therefore accountable to governments and ENGOs for their performance. Disclosure of poor performance is considered to be reasonable within this context.

The individuals who were interviewed for the qualitative analysis of corporate policies and practice were not named in order to protect their privacy and commercial confidentiality. Care has been taken in Chapters 5 and 6 to ensure that quotes from the interviews cannot be attributed to companies or individuals.

Outline

Chapter 2 reviews what is already known about product-related environmental policies, including PS and EPR, and their influence on corporate behaviour. The literature on product responsibility, CSR, DFE and voluntary environmental agreements is reviewed to identify alternative approaches to the evaluation of corporate social performance from managerial liberal, neo-liberal and institutionalist perspectives.

Chapter 3 builds on this review to develop an analytical framework for the thesis. It outlines an approach to the evaluation of PS in the Australian packaging industry which combines insights and research methods from new institutional organisational theory, the corporate social performance perspective, stakeholder theory and policy network analysis.

The empirical results are provided in the subsequent three chapters. Chapter 4 examines the role of discursive and public policy processes in defining the packaging problem and corporate responsibility in Australia between 1970 and 2005, and in influencing corporate responsiveness. Industry associations and individual companies have played either proactive or reactive roles, depending on their interests and policy beliefs, in both constructing and implementing PS as the framework underpinning packaging policy.

Chapter 5 then develops the product stewardship responsiveness framework, based on indicators and guidelines for the evaluation of corporate performance. This is used to analyse the implementation of PS policies and practices within companies in different sectors of the Australian packaging supply chain. The results of this semi-quantitative evaluation of responsiveness, based on what companies claim to be doing to implement PS in their public statements, are presented and analysed to identify areas of common practice as well as important differences within and between industry sectors.

Chapter 6 extends this analysis by exploring within individual companies the organisational drivers, structures and cultural features which are shaping responsiveness. These issues are critical to the evaluation of the NPC and the potential development of new policy instruments that aim to influence managerial decision making.

Finally, Chapter 7 discusses the research findings and the extent to which they answer the research questions. It also identifies the implications of the research for CSR theory, public policy and corporate practice, and identifies some promising areas for further research.

Chapter 2

Understanding corporate responsibility for products

This chapter aims to review what is already known globally about product-related environmental policies and their influence on corporate behaviour. It addresses three questions: How is corporate product responsibility defined and what are its implications for corporate policy and practice? How effective have product responsibility policies such as the NPC been in driving changes in corporate behaviour to reduce the environmental impacts of packaging? And how have other researchers investigated the implementation of product and other social responsibilities? In order to do this, the first part of the chapter describes the dominant two approaches to product-related environmental management, i.e. product stewardship and extended producer responsibility. This is followed by a review of the literature on CSR, DFE and voluntary environmental agreements (VEAs) to identify alternative approaches to the evaluation of corporate social performance from managerial liberal, neo-liberal and institutional perspectives. The chapter concludes that managerial liberal frameworks can usefully be combined with an institutionalist approach which considers corporate responsiveness in the context of social, economic, political and cultural institutions that influence corporate behaviour.

Product stewardship and packaging

Many terms are used to refer to the responsibility that companies have for the environmental management of products, including product stewardship, extended producer responsibility, extended *product* responsibility (US EPA, 1998) and product chain responsibility (Meinders and Mueffels, 2001), but there are important differences in how these terms are interpreted in practice. This section aims to unravel the different interpretations of product responsibility and their implications for environmental management and policy.

Why products?

By the late 1980s and 1990s it had become clear that environmental problems were continuing to increase despite the fact that many countries had reduced emissions from

industrial sources. This was certainly true in Australia, where in the mid–1980s the Victorian Environment Protection Authority (EPA) turned its attention away from industrial pollution to the environmental impacts of everyday life, including solid waste (Unglick, 1996). According to Lindhqvist (1992b), a new approach to environmental management was needed because the environmental impacts of products were becoming more visible. Solid waste had become a higher priority in Western European and other industrialised countries because of declining landfill space, increasing costs of disposal and opposition to new landfills. Those who were actively involved in recycling and waste management realised that the solution needed to go beyond the expansion of recycling systems run by local authorities. Particularly in Western Europe, the result was the development, of 'product-oriented environmental policies' (Heiskanen, 2000, p. 34). The European Commission (EC) promoted the concept of 'integrated product policy', which '...focuses on those decision points which strongly influence the life cycle environmental impacts of products and which offer potential for improvement' such as design for environment (DFE) and environmental labelling' (European Commission, 2003, p. 5).

According to Heiskanen (2000, p. 64), another factor which influenced the identification of 'products as problems' was the increasing use of life cycle assessment (LCA) as a method for the quantification of environmental impacts throughout a product's life cycle. Interest in LCA began in the 1970s within the context of the energy crisis and concerns about resource depletion, and the first LCA-like study was on packaging[7]. The shift to product-oriented environmental policy and the increasing use of LCA by the business community helped to institutionalise a 'life cycle approach' in policy and business. Heiskanen (2000, p. 3) has defined the life cycle approach as '...discourses, practices and techniques that relate products to environmental impacts in their physical life cycle'.

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[7] The terminology used at the time included 'eco-balance' and 'resource and environmental profile studies' but LCA is now widely recognised through international standards (e.g. ISO, 1997). The first LCA was conducted for the Coca Cola company on the environmental impacts of different soft drink containers (Heiskanen, 2000, p. 28).

Product responsibility: product stewardship and extended producer responsibility

These trends in environmental policy and practice prompted calls for increased corporate responsibility for the life cycle impacts of products. However, there are very different views on the nature and purpose of this responsibility, for example whether it should focus on post-consumer waste or the entire product life cycle; the extent to which responsibility should be shared with suppliers, retailers, consumers and government; and the extent to which it should be regulated by the state. These differences are explored below by comparing EPR and PS.

Extended producer responsibility

EPR focuses on waste management, places most of the responsibility for product management on the producer (or brand owner) and emphasises the need for this responsibility to be regulated by the state. It proposes a reallocation of responsibility for product waste management between industry, consumers and governments:

> EPR *extends* the traditional environmental responsibilities that producers and importers have previously been assigned (i.e. worker safety, prevention and treatment of environmental releases from production, financial and legal responsibility for the sound management of production wastes) to include the management of products at their post-consumer stage (OECD, 2001, p. 10, emphasis in original).

EPR programs recognise that the environmental costs of waste management are not reflected in product prices (Anders, 1995) and that these costs should be internalised. However, while the focus of EPR is on post-consumer waste management, there are other benefits. Fishbein (2000, p. 62) noted that 'the post-consumer stage is simply an intervention point ... A producer that responds to EPR by making a less wasteful and more recyclable product will reduce the huge environmental impacts of raw materials extraction … as well as the impacts of materials and energy use associated with materials' processing and the manufacture of new products'. This supports Lindhqvist's view that a fundamental objective of EPR is to influence product design. He argued that while the manufacturer, distributor, user, recycler and final disposer can all influence the environmental impacts of a product, primary responsibility rests with manufacturers because they are in a unique position to influence product design (Lindhqvist, 1992a).

While some writers have interpreted EPR quite broadly to include voluntary agreements (e.g. Anders, 1995; OECD, 2001), EPR is generally understood as a form of legal duty, authorised and enforced by government (Ehrenfeld, 2000). This 'duty' can take a number of forms, including financial and/or physical responsibility for product recovery (Lindhqvist, 1992a).

Product stewardship

In the United States (US), legally enforceable EPR generally has been avoided in favour of voluntary approaches, reflected in the use of terminology such as PS or extended *product* responsibility. According to Fishbein (2000), a failed attempt was made in 1992 to include an EPR provision in the reauthorisation Bill for the *Resource Conservation and Recovery Act*, thus 'ending efforts to enact EPR at the federal level'. EPR was introduced by public interest research group INFORM to the President's Council on Sustainable Development (PCSD), a multi-stakeholder group created by President Clinton:

> The subject of EPR was introduced to the PCSD by INFORM and immediately sparked heated debate, with industry representatives strongly objecting to the idea of 'producer' responsibility. Ultimately, the PCSD recommended a policy of 'extended <u>product</u> responsibility', which differs from extended producer responsibility in the following aspects:
>
> 1. Responsibility is for the environmental impacts of products over their entire life cycle, with no focus on the post-consumer stage.
>
> 2. Responsibility is shared by consumers, government, and all industry actors in the product chain, with no targeting of specific producers such as manufacturers or retailers.
>
> 3. Responsibility is not required to be physical or financial; for example, it may simply mean providing consumer education.
>
> 4. Responsibility is voluntary, not mandatory (Fishbein, 2000, p. 74).

INFORM argued that 'making everyone responsible for everything means no one is responsible for anything'; but the 'product responsibility' definition prevailed (Fishbein, 2000, p. 75).

Since that time the term 'extended product responsibility' has largely been replaced by 'product stewardship' in the US. The concept and language of PS has its origins in earlier

calls for businesses to practise 'environmental stewardship'[8] and in the development of a PS code of practice by the Canadian Chemical Producers Association (CCPA). A project entitled 'Responsible Care/Product Stewardship' was originally developed within Dow Chemical (Canada) and presented to the CCPA Board in 1981 (O'Connor, n.d.). The guiding principles were formalised in 1983 but, following the chemical accident in Bhopal, India in November 1984, the Board decided that Responsible Care would be developed into a proactive safety audit process '...with particular emphasis on product stewardship' (O'Connor, n.d., p. 5). Responsible Care is now in place in at least 40 countries and includes six codes, including one on PS. The Australian version of the voluntary code emphasises the role of PS in risk management in the chemical industry, stating that '[t]he purpose of product stewardship and of this code is for a company to actively engage in the identification and management of risks associated with its products, to the extent consistent with its degree of influence at each stage of the product life cycle' (PACIA, 2006, p. 2). The importance of PS for risk management has become increasingly important because companies may be held legally liable for environmental damage which is caused during the transport or use of their products, even if it is not a direct consequence of their actions (Snir, 2001). Within this context, PS has been defined as '...the set of practices related to reducing risks from chemical and process hazards in a company's supply chain' (Snir, 2001, p. 190).

The US EPA's website (2006) defines PS as 'a product-centered approach to environmental protection' that 'calls on those in the product life cycle—manufacturers, retailers, users and disposers—to share responsibility for reducing the environmental impacts of products'. They also acknowledge, however, that 'in most cases, manufacturers have the greatest ability, and therefore the greatest responsibility, to reduce the environmental impacts of their products'. In Australia the meaning of PS is closely

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[8] The term 'stewardship' was used in some of the earliest statements about the social responsibilities of business, for example Bowen (1953) argued in *The social responsibilities of the businessman* that '[h]is role is that of steward and he is justified in retaining his social position only if the interests of society, on balance, are best serviced thereby' (Bowen, 1953, pp. 39-40). According to Harré *et al.* (1999, p. 40), the religious interpretation of the term stewardship, which assumes that the world is made for human beings, has been an important influence on environmental discourse. 'Environmental stewardship' is now widely used as a metaphor for environmental responsibility and is one of the most common phrases found in corporate environmental policy statements (UNCTAD, 1993).

aligned to the US interpretation, emphasising shared responsibility and minimal (or no) regulation. According to the Environment Protection and Heritage Council (EPHC, 2004a, p. 2)[9], PS is '[A]n approach that recognises that manufacturers, importers, governments and consumers have a shared responsibility for the environmental impacts of a product throughout its full life cycle'. The EPHC (2004a, p. 4) has suggested that PS programs should ideally be industry-initiated and controlled: 'As businesses understand their own sector and products best, they are best placed to develop the most appropriate product stewardship schemes for their sector'.

PS promotes (or implies) a series of environmental management practices which will achieve this objective, but these practices vary and are rarely identified in any detail. For example, Hart (1995) has defined it as a strategy to minimise the life cycle environmental costs of a company's products by exiting hazardous businesses, redesigning product systems to reduce liabilities and developing new products with lower life cycle environmental costs. A summary of practices which are promoted in the literature as PS initiatives is provided in Table 2. This illustrates that, while there are regular references in the literature to 'life cycle management' and to a wide range of practices, particular emphasis is placed on the role of design. Two organisations (PACIA, 2006; PSI, 2002) refer to the impacts of products on both human health and the natural environment.

Comparing PS and EPR

The previous section highlighted two important areas of difference in the way that product responsibility is interpreted as an environmental policy tool:

- *the way in which it is regulated*, for example through voluntary industry initiatives, voluntary agreements, co-regulatory approaches and fully regulated schemes (EPHC, 2004a);

- *the way in which responsibility is allocated*, for example by making producers physically or financially responsible for products at end-of-life or by promoting 'shared responsibility' with other actors in the product chain.

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[9] The EPHC has responsibility for national coordination of environmental policy in Australia. Its members include ministers from participating jurisdictions, i.e. the Australian Government, state and territory governments, the New Zealand Government, and the Papua New Guinea Government.

Approaches to product responsibility are located along a spectrum in both dimensions (Figure 4). The terms 'product stewardship' and 'extended producer responsibility' are often used interchangeably, but while they do overlap there are important differences between them. PS is normally used to refer to voluntary or quasi-voluntary initiatives which assume that producers have responsibility for the life cycle environmental impacts of their products, but this responsibility is shared with companies in the supply chain as well as governments. PS therefore can be regarded as a form of CSR because it reflects a preference for voluntary corporate initiatives to meet changing social or stakeholder expectations. In contrast, EPR normally involves some form of regulation which makes producers responsible for management of their products at the post-consumer stage. It tends to be opposed by businesses, who regard consumers as the 'polluter' and see waste management as the responsibility of governments (Anders, 1995).

Table 2: The implications of PS for corporate policy and practice

Description and source	Practices
Product stewardship (PACIA, 2006, p. 8)	• Design products to reduce health, safety and environmental (HSE) impacts • Select suppliers and contractors who implement proper HSE and PS practices • Encourage customers to follow recommended use and HSE practices involving the company's products
Extended product responsibility (US EPA, 1998)	• Design for environment • Implement supply chain and industry partnerships • Develop lease arrangements between suppliers and customers • Product take-back
Product chain responsibility (Meinders and Mueffels, 2001)	• Design for environment within an ISO 14001 framework (continuous improvement) • Ensure suppliers/contractors meet environmental requirements • Educate customers through marketing communication
Product oriented environmental management (Brezet and Rocha, 2001)	• Product oriented environmental policy • Environmental profile of products • Design for environment • Cleaner production • Eco-marketing
Integrated product policy (European	• Employee education on life cycle thinking • Promote ecodesign and LCA

Commission, 2003)	• Using EMS including the product dimension
	• Green purchasing
	• Support eco-labels
	• Follow guidelines on green claims
	• Customer and supplier training on life cycle thinking
	• Support pilot projects
	• Information sharing with other companies and stakeholders

Figure 4: Key differences between EPR and PS
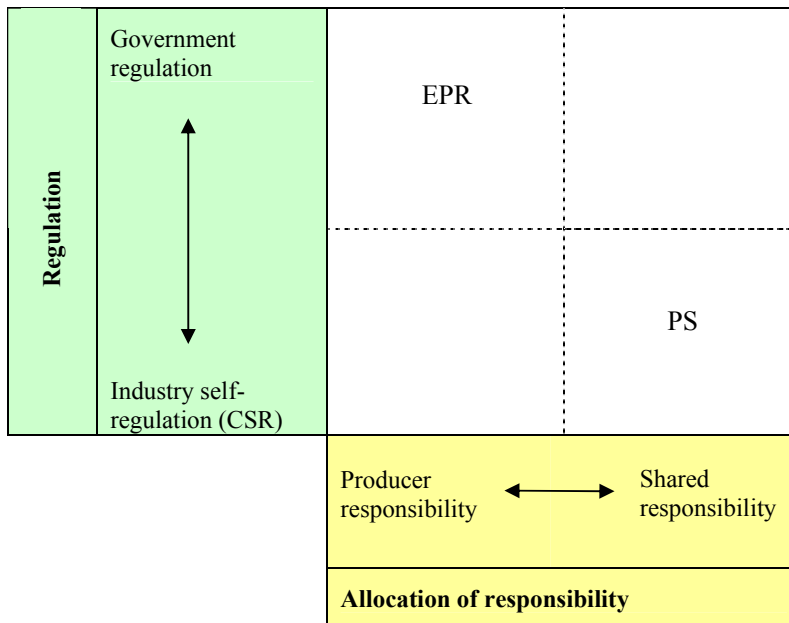
Another important difference between PS and EPR relates to the implications for corporate practice. While both concepts involve increased responsibility for the life cycle impacts of products, PS is more complex because it implies more extensive changes (Table 3).

Table 3: Implications of PS and EPR for corporate policy and practice

	Policies and procedures to implement responsibilities
PS	Product-oriented policy
	Product assessment
	Design for environment (DFE)
	Cleaner production
	Environmental purchasing
	Education of employees and customers
EPR	DFE
	Financial or physical support for post-consumer waste management

Packaging stewardship policies

PS in the packaging industry, which is often referred to as 'packaging stewardship' (e.g. AFGC, 2007; Sinclair, 2000) dates back to the early 1970s. Concerns about the impact of single-use beverage bottles resulted in CDL, or 'bottle bills', being introduced in a number of Canadian and US states as well as South Australia, to encourage the use of reusable bottles[10]. CDL requires manufacturers to charge consumers a deposit on every container sold, and to repay this deposit on return of the container to a collection point. The *Ordinance on the Avoidance of Packaging Waste 1991* (the 'German Packaging Ordinance') was the first regulated EPR scheme to be introduced. At that time packaging was regarded by governments as a priority for waste management policy because of its contribution to landfill by weight and volume; the fact that landfills and incineration plants were becoming more difficult to site for political reasons; and increasing environmental standards for waste management facilities which were making waste disposal more costly (Goeke and Chalot, 1995). The German regulation made manufacturers and sellers responsible for the take-back and recovery of used packaging.

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[10] The first 'bottle bill', which banned non-refillable containers and required deposits, was introduced in Vermont in 1953 but was not renewed after it expired in 1957 (Ackerman, 1997, p. 126). The *Oregon Beverage Container Act* 1971 imposed mandatory deposits on all beverage containers, but a higher deposit on non-refillables. It also banned metal cans with detachable parts. The legislation was highly contentious and was challenged unsuccessfully in the courts by the beverage industry (Parliament of Australia, 1974). CDL has progressively been introduced in British Columbia, Canada (1970), Vermont, US (1972), South Australia (1975), Connecticut, US (1978), Delaware, US (1982), Sweden (1982), Switzerland (1990), Denmark (1989), Austria (1990), California, US (1991), Michigan, US (1988), Iowa, Massachusetts, New York and Oregon, US (1990), Maine, US (1991) and Hawaii, US (2002).

In response, the packaging industry established a nationwide program to collect packaging (called the *Duales System Deutschland* or DSD) which charges a fee on each package to cover the costs of collection and reprocessing. With other countries preparing to follow suit, the European Commission was forced to develop a common policy approach through its *Packaging and Packaging Waste Directive* (1994) (the 'Packaging Waste Directive')[11]. This required member states to introduce policy mechanisms which would achieve a minimum recovery target for packaging of 50% by July 2001[12].

Packaging policies designed to meet these requirements have since been established in other European Union (EU) countries although there are significant differences, for example in the allocation of financial responsibility for waste management within the packaging supply chain, and between industry and local government. Austria, Ireland, Italy, the Netherlands and Sweden have all made producers responsible for ensuring the collection and recycling of packaging to meet the targets[13]. The Netherlands originally introduced voluntary agreements between industry and government to meet the EU requirements but these were later replaced by mandatory EPR regulations[14]. The United Kingdom (UK) has an EPR system which is different to those in Germany and other European countries because recycling obligations are allocated not just to producers, but to each sector of the packaging industry according to their responsibility for packaging production and their ability to reclaim materials (Bailey, 2003)[15]. In France financial

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[11] According to Bailey (2003), the European Commission was concerned that the German regulation would act as a barrier to trade within the European Union, particularly the provisions for a mandatory deposit-refund system to be imposed if the reuse target for bottles and cans was not met in any one year. Other countries were considering legislation to address packaging waste, and France pre-empted the move to establish a European directive by establishing its own ordinance on used packaging from households in 1992 (Bailey, 2003).

[12] This was amended in 2004 to 55% by 2008.

[13] These requirements are established in the following laws or regulations: Austria (*Packaging Ordinance 1992*), Ireland (*Waste Management (Packaging) Regulations 1997*), Italy (*Legislative Decree 1997*), Netherlands (*Decree on the Management of Packaging Paper and Board 2005*), Sweden (*Ordinance on Producers' Responsibility for Packaging 1997*).

[14] The first voluntary packaging covenant in the Netherlands between the government and industry was introduced in 1991 and renegotiated in 1997 and 2001. Local government retained responsibility for collection and incineration of waste, while industry was responsible for delivering collected materials to reprocessors.

[15] Responsibility is apportioned to raw material suppliers (6%), converters (9%), packer-fillers (37%) and retailers (48%). Tradeable recycling permits ('Packaging Recovery Notes') are used by

responsibility is shared between industry and municipal governments with local government responsible for collection of packaging and industry for reprocessing. Japan and South Korea have also both introduced mandatory take-back (EPR) schemes for packaging[16].

In contrast to Europe, the US, Canada, New Zealand (NZ) and Australia all promote PS rather than EPR; although the US is the only country within this group not to have introduced a national packaging policy. The Canadian Government developed a voluntary agreement with the packaging industry and a number of provincial governments have introduced their own waste reduction programs[17]. NZ has a voluntary *Packaging Accord* between the national government, local government, packaging manufacturers, brand owners and fillers, retailers and recyclers[18].

A summary of the different approaches to product responsibility internationally is provided in Figure 5. It should be noted that PS and EPR are not the only approaches being used globally to control the environmental impacts of packaging. CDL has already been discussed, but other policy approaches include differential packaging taxes designed to influence design in favour of lower impact or recyclable materials; mandated recycling rates, packaging levies and product bans[19]. These programs do not necessarily promote a

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the government to monitor recycling rates, and by producers to provide evidence of compliance (Bailey, 2003).

[16] In Japan the *Packaging Source Separation and Recycling Law 1995* promotes industry obligations for recovery of certain types of packaging. Municipalities retain responsibility for collection and separation of materials (Holmes, 1999, p. 87). EPR is required in Korea under the *Promotion of Saving and Recycling Resources Act 1992.*

[17] In 1990 Canadian Council of Ministers of the Environment (CCME) endorsed the 'National Packaging Protocol' (NAPP), a voluntary agreement with industry to reduce packaging waste. The agreement concluded in 2000. It aimed to reduce the amount of packaging waste disposed by 35% by the end of 1996 and 50% by the year 2000, compared to 1988 levels. *Guiding Principles for Packaging Stewardship* were developed to provide a general framework for how industry could meet these targets in practice (CCME, 1996). In Manitoba the government has introduced a levy on beverage packaging which is used to subsidise local kerbside collection programs (Sinclair, 2000).

[18] The Accord was signed in July 2004 and forms part of the NZ Waste Strategy (Ministry for the Environment *et al.*, 2004). Agreements have been signed by government ministers and associations rather than individual companies. It followed the earlier *Accord on a Strategy to Minimise Packaging Waste* signed by the Packaging Industry Advisory Council (1996–2001). The new Accord will run for 5 years.

[19] For example, packaging taxes exist in Belgium, Croatia, Denmark, Estonia, Finland, Hungary, Latvia and Norway. A 25% mandatory recycling rate for beverage containers has been imposed in California, Oregon and Wisconsin in the US. The Irish government introduced a levy on single-use

'life cycle approach' to the management of packaging as they only focus on one point in the life cycle, for example the selection of materials or recycling at end-of-life.

Figure 5: Examples of producer responsibility schemes for packaging

	Government regulation	Germany, Austria, Sweden, Netherlands, Ireland, Italy, South Korea	United Kingdom, France, Japan
Regulation	↕	Denmark	United States, Canada, Australia, New Zealand
	Industry self-regulation (CSR)		
		Producer responsibility ←→ Shared responsibility	
		Allocation of responsibility	
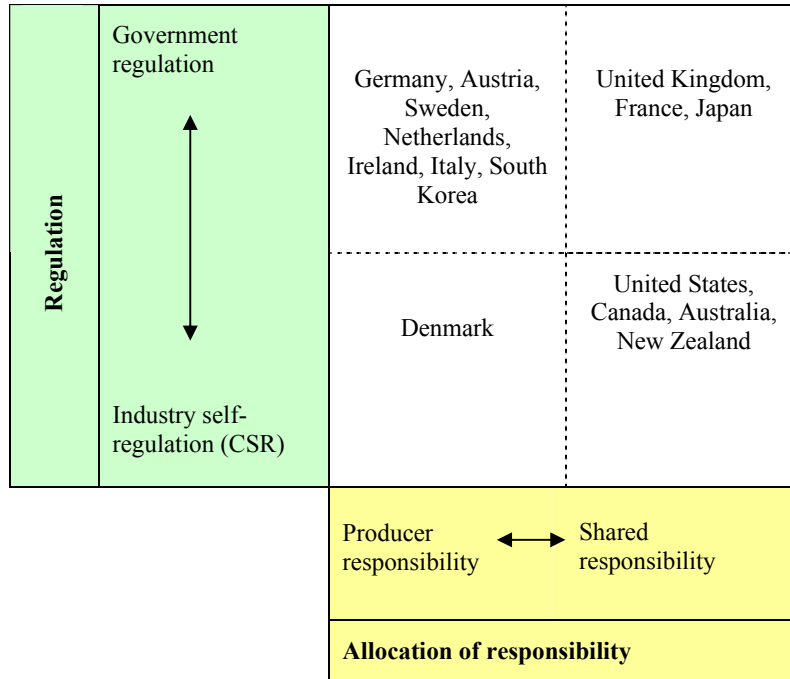
Evaluation of packaging stewardship policies

Limited research has been undertaken on the effectiveness of packaging policies in changing corporate policy and practice. Nevertheless, it is important to consider the implications of this work, largely evaluation studies, for this research. This is done by examining research undertaken on the NPC and other packaging stewardship policies.

The National Packaging Covenant

James (2002) studied the environmental management practices of companies in the Australian packaging and food industries (Table 4). While corporate behaviour was not

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plastic bags in 2001 to encourage the use of reusable bags. The Chinese Government issued an order in 1999 which required all large and medium sized cities to ban the sale of polystyrene foam dishware by the end of 2000. The manufacture and use of plastic bags was banned in Mumbai, India in 2000 to alleviate blocking of stormwater drains, which caused flooding.

explored in any detail, an attempt was made to link environmental responsiveness to industry sector and ownership structure. The study found that public companies were more likely to have an environmental policy, an environmental section in their annual report, an environmental report and an environmental management system (EMS). Drivers which were identified included due diligence and legal compliance for implementation of an EMS and corporate citizenship/corporate governance for environmental reporting. At the time James conducted her interviews (2000) only a small number of the surveyed companies had signed the NPC. The main reason given for doing so was to avoid the NEPM or alternative regulation. It was too early to evaluate changes resulting from the NPC, but most of the respondents *expected* that it would result in a number of changes to decision-making processes, partnerships, business management and competition. While this research contributes to our understanding of environmental management in the food and packaging sectors, it did not investigate important PS practices such as DFE and environmental procurement, nor did it explore reasons for corporate responsiveness in any detail.

Table 4: Environmental practices in the food and packaging industries

Policy / practice	Companies stating that they have adopted each policy or practice (N=27)	
	Number of respondents	Percentage of respondents
Environmental policy	19	70%
Environmental section in annual report	10	37%
Stand-alone environment report	9	33%
Environmental management system	14	52%
Voluntary environmental initiatives*	20	74%
Signatory to Greenhouse Challenge**	9	33%
Use of LCA methodology	6	22%
Use of life cycle costing	6	22%
Environmental accounting***	0	0%

Source: derived from James (2002)

* Including education, community initiatives, sponsorship of non-government organisations, restoration of natural resources and recycling.
** A voluntary federal government greenhouse gas reduction program.
*** Companies in the sample did not calculate environmental costs separately from other business costs.

A mid-term review of NPC Mark I (GHD, 2002) used a semi-quantitative scoring methodology to evaluate company compliance on the basis of action plans and annual reports submitted to the National Packaging Covenant Council (NPCC)[20]. The study found many gaps in awareness, planning and implementation of action plans but, like the previous study, it was too early to make any realistic assessment of corporate behaviour change. Another three evaluations were conducted immediately before the negotiation of NPC Mark II for different NPC stakeholders, including the NPCC, local government and the Nature Conservation Council of NSW (NCC). Their objectives and methodology varied. The report to the NPCC (Nolan-ITU, 2004) examined the effectiveness of the NPC in achieving its stated objectives[21] and evaluated action plans and annual reports using a semi-quantitative scoring method similar to the one developed earlier by GHD (2002). Signatories and other stakeholders (such as environmental groups) were also interviewed to obtain their views on the program's effectiveness. The report found that while the NPC had a high level of participation (560 companies were signatories at the time) there was little evidence of any real outcomes achieved such as lower environmental impacts or resolution of packaging waste issues. It investigated the 'depth of signatory commitment' by examining the content of action plans and annual reports and found significant variations in the responsiveness of firms (Nolan-ITU, 2004), but the emphasis was on compliance rather than corporate responsiveness to PS in general.

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[20] For each of the suggested actions in the NPC (e.g. design, production, distribution, disposal and research etc.) companies were given a score between 1 and 5, with a score of 1 given if they indicated a commitment to implement an action and additional points awarded for higher levels of commitment. To avoid penalising companies which were new to the NPC, the scores were then weighted in favour of the lower levels of commitment when calculating the total scores. A score of either 0 or 1 was assigned for the following intentions (GHD, 2002, p. 5): a general intent to comply with the issue (weighting of 1.5); detailed actions addressing the issue (weighting of 1.5); setting measurable (numerical) targets (weighting of 0.75); providing a system for collecting data to monitor progress (weighting of 0.75) and assigning resources/responsibility to addressing the issue (weighting of 0.5).

[21] These were: '(1) Establish a framework based on the principle of shared responsibility for the effective life cycle management of packaging and paper products including their recovery and utilisation; (2) Establish a collaborative approach to ensure that the management of packaging and paper throughout its life cycle and the implementation of collection systems including kerbside recycling schemes, produces real and sustainable environmental outcomes in a cost effective manner; (3) Establish a forum for regular consultation and discussion of issues and problems affecting the recovery, utilisation and disposal of used packaging and paper, including costs (ANZECC, 1999, p. 3).

The report to local government associations (Meinhardt, 2004) was based on a survey of local government representatives to ascertain their views on the effectiveness of the NPC. Most respondents believed that industry had failed to achieve significant change in the management of packaging waste and that action plans were often broad statements of intent without any real commitments, and as a result they argued that the NPC should be replaced with a stronger EPR framework. This study was based on stakeholder perceptions of corporate performance rather than a first-hand review of responsiveness and performance, and is therefore of only limited relevance here. However, it is important in demonstrating that NPC Mark I lacked the support of an important stakeholder group— local government—an issue which is explored more fully in Chapter 4.

The third evaluation, which was conducted for the NCC (White *et al.*, 2004) had a wider brief. This was to evaluate the NPC's effectiveness in achieving its stated objectives as well as broader social and environmental outcomes. To assist in this process, the authors developed a set of criteria for a best practice packaging waste policy[22]. The methodology included a literature review, interviews with stakeholders and a review of a limited number of company action plans to determine whether they made reference to 15 suggested actions for signatories[23]. It found no evidence that the NPC had resulted in a reduction in packaging waste and concluded that shared responsibility had not been achieved. The report argued that, while local government continued to subsidise kerbside recycling services, many of the packaging design initiatives associated with the NPC, such as lightweighting or waste reduction, provided financial benefit to companies. The study used a small number of case studies to evaluate corporate commitment to the NPC and, once again, relied on NPC action plans and annual reports. However, like the other

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[22] Reduction in generation of packaging waste, compliance, measurability, transparency, clear objectives, shared responsibility, cost-effectiveness, consultation and participation, education and communication and administrative simplicity (White *et al.*, 2004, p. 111).

[23] The suggested actions were: establish measurable performance objectives; commit to improvement of environment and waste minimisation; develop material specifications for use of recycled materials; support kerbside collection; implement best practice collection; contribute to R&D into product design; support the development of markets for recycled materials; provide labels and information for the community; undertake education and community awareness; cooperate in collection of relevant data; alter logistics systems to reduce environmental impacts; mention product stewardship; clearly address roles and undertakings; mention the environmental code of practice; mention contributions to the Transitional Fund (White *et al.*, 2004, pp. 48–49).

evaluations it did not consider corporate commitment, responsiveness or performance in any detail.

These three evaluations were all conducted for particular interest groups. A doctoral thesis which looked at the application of the NPC to the fruit and vegetable industry in Western Australia (Arbuckle, 2005) was equally negative, concluding that the NPC 'had had little impact, had failed to engage the majority of stakeholders and is characterised by a general lack of commitment by dominant firms within the industry' (p. iii). Another study evaluated the NPC against a framework for the effective design of voluntary agreements and highlighted significant problems with the NPC, including a lack of positive incentives for companies to participate and inadequate enforcement of the regulatory safety net (Burritt *et al.*, 2005). A more critical analysis (Sommer, 2006) argued that the NPC had failed for a number of reasons, including regulatory capture by packaging industry interests, inadequate enforcement of regulatory sanctions, and the flawed nature of PS as a conceptual framework for policy. In Sommer's view, PS puts too much responsibility on to consumers and local government and provides companies with insufficient incentive to change their packaging.

The Australian Productivity Commission (2006) considered the NPC very briefly as part of its review of waste management and resource efficiency policies in 2006. In their view the NPC is likely to have a net social cost because of the high costs of compliance and the relatively low environmental impacts of packaging, and recommended that the planned review of the NPC in 2008 consider the costs and benefits of other approaches including 'doing nothing' (p. XLII). Their preference is to control environmental impacts directly through regulation or market based instruments (MBIs) at the point in the product life cycle where they occur, rather than through product responsibility schemes (Productivity Commission, 2006).

Research for the mid-term review of the NPC was completed in late 2008. This concluded that the infrastructure for recycling has improved significantly and that recycling targets for 2010 are likely to be achieved (Covec, 2008; Hyder Consulting, 2008a). However, due to the poor quality of reporting it was difficult to determine the extent to which companies are reducing the environmental impacts of packaging (Lewis, 2008; Verghese *et al.*, 2008).

Other product responsibility policies

Evaluations of other product responsibility policies have concluded that their effects on the implementation of DFE are linked to the amount of responsibility given to firms. For example, an evaluation of 25 EPR programs found evidence that they were influencing DFE within firms, and concluded that DFE effects were closely related to features of EPR policies which resulted in higher levels of producer responsibility (Lura Consulting *et al.*, 2002; cited in OECD, 2005, pp. 42–43). These results were supported by another report on the effectiveness of EPR policies in driving environmental design and innovation (van Rossem *et al.*, 2006). This found considerable evidence that EPR policies provided incentives for companies to redesign their products, often well ahead of legislative deadlines.

Evaluations of the German Packaging Ordinance have used product case studies (DSD, 1992) and consumption and recycling data (DSD, 1992; Michaelis, 1995; OECD, 2001) to evaluate its effectiveness in changing packaging practices. All of these concluded that the policy had resulted in significant changes in design to reduce packaging and to make it more recyclable. However, there has been some criticism that many of the packaging changes in Germany could not be attributed to the Packaging Ordinance. Rather, they were the result of continuous improvements in design which had been occurring throughout the global packaging industry (Sinclair, 2000). EPR packaging policies in France and Germany have been found to generate other positive outcomes such as collective learning, generation and diffusion of information and consensus-building (Börkey *et al.*, 1998).

An evaluation of the Manitoba Product Stewardship Program in Canada, which imposes a levy on containers to fund recycling, concluded that it has not provided companies with sufficient incentive to reduce or redesign their packaging (Holmes, 1999). The author found little evidence of packaging reduction and an 'apparent unwillingness of industry to fully grasp program objectives and goals in the current climate of non-obligated responsibility' (p. iii). In contrast, EPR-style packaging legislation in British Columbia which requires companies to establish collection programs for packaging under a deposit-refund system, appears to be more effective in providing an incentive for product redesign (McKerlie *et al.*, 2006).

Other studies have examined the macro-level impacts of packaging policy. For example, Walls (2006) evaluated the impacts of the UK packaging waste policy by comparing growth in packaging at a national level with Gross Domestic Product (GDP). She hypothesised that the tradeable recycling permit system established under the policy would not provide companies with an incentive to make their packaging more recyclable because this would incur a cost, while the benefit of the change would be shared across the market. However, she suggested that it would provide an incentive for 'downsizing' (using less material) because this would reduce the cost to the company of recycling permits. While noting that 'one does not know what packaging would have done in the absence of regulations' (p. 29), she did observe that growth in packaging between 1998 and 2004 was well below growth in GDP. This was supported by anecdotal evidence that there had been some changes in packaging in response to the system. Another evaluation of EPR packaging policies in five EU countries (EEA, 2005) found that packaging waste generation fell in only two of the five countries studied between 1997 and 2001 (Austria and the UK).

Conclusions on product stewardship and packaging

PS is a discourse which is based on the principle that producers have some responsibility for the environmental impacts of their products, although the extent of this responsibility is not clearly defined. Unlike EPR, it tends to focus broadly on the 'product life cycle' rather than post-consumer waste management, and the term 'stewardship' deflects attention from the producer and towards the notion of 'shared responsibility' with other organisations in the product chain. The implications of PS for management practice within individual companies are often not spelled out, although the discourse is associated with various environmental management practices such as environmental purchasing and DFE.

Within the Australian packaging industry PS responsibilities are defined through general statements of principle and a range of optional management practices suggested in the NPC. Several studies have found that NPC Mark I achieved a high level of participation but limited environmental outcomes and did not meet the expectations of some key stakeholders for significant changes to the way that packaging is managed. For example, the evaluation of the NPC which was undertaken for an ENGO (White *et al.*, 2004) included packaging waste reduction as an evaluation criterion despite the fact that this was

not an explicit goal of the NPC. None of the previous evaluations of the NPC explored the responsiveness and performance of companies in any detail. For example, there was no attempt to understand corporate behaviour beyond a superficial review of compliance.

Other studies from Europe and Canada suggest that EPR policies are likely to be more effective than voluntary programs such as PS in promoting product responsibility, particularly DFE, because they provide companies with a financial incentive to change their behaviour.

Corporate social responsibility and behaviour

This section discusses PS within the broader context of CSR in order to gain a better understanding of corporate responsibility and behaviour. This is done by examining research from a broad range of disciplines including business management (corporate social responsibility), environmental policy (voluntary agreements and product responsibility), and design (DFE).

CSR is a broad concept with many different interpretations. It is often applied as a normative concept, i.e. that companies have obligations to society which go beyond their direct economic or technical interest (Davis, 1960). Some definitions encompass a wide range of environmental and social issues (e.g. Holme and Watts, 2000), while others focus on social, ethical and citizenship obligations (e.g. Welford, 2004)[24].

Attempts have been made to categorise the literature from a political economy perspective. For example Danley (1994, p. 3) identified two positions which he referred to as 'classical liberalism' and 'managerial liberalism'. The classical view is that the main responsibility of corporations is to increase profits for shareholders in an environment of limited government. The managerial view, which dominates the 'business in society', corporate citizenship and business ethics fields, is that corporations have responsibilities to a wider range of stakeholders whose interests must be considered in making any decision (Danley, 1994)[25].

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[24] Welford interprets CSR as a concept which runs parallel to corporate environmental management, including responsibilities in the workplace, supply chains and local communities.

[25] The 'business in society', corporate citizenship and business ethics fields are related, but have different geographic and disciplinary origins. The academic study of 'business in society' had its origins in the formation of the Social Issues in Management Division of the US Academy of

A much broader analysis was undertaken by Mintzberg (1983). He identified eight perspectives on who should control the corporation and how it should be made more responsive to stakeholders. These range from the politically radical (companies should be nationalised or democratised) to the politically conservative (companies should only pursue economic goals).

For the purpose of this review, three categories will be used to show that analysis of corporate responsibility and the PS institution involves some consideration of underlying assumptions and normative orientation (these categories are of course generalisations, and the writers may not classify themselves in these terms):

- **Neo-liberalism:** Sometimes referred to in the Australian context as economic rationalism, this perspective is based on a belief that the free reign of market forces will produce more efficient economic outcomes than a regulated economy, and its stated goal is therefore the reinvigoration of free-enterprise capitalism (Stilwell, 2002). This approach is championed by some of the critics of CSR and is evident in the neo-classical economics literature on waste and packaging policy.

- **Managerial liberalism:** This approach, like that of the neo-liberals, is based on traditional liberal values of market freedom and minimal government intervention in business affairs. However, unlike neo-liberals, managerial liberals support ethics-based or stakeholder-based notions of CSR and accept a more active role for the state in controlling business activities. They identify and promote the potential benefits of CSR for companies, and therefore regard self-regulation driven by competition as more effective than legislation (Danley, 1994). A similar perspective can be found in

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Management in the early 1970s. While not rooted in traditional disciplines, academics in the field became progressively more interested in defining the field as one of its own rather than a sub-discipline of management or strategy. It became more formalised with the establishment of the International Association for Business and Society in the 1980s, and its adoption of the existing *Business & Society* as its official journal (Paul, 2004). The term 'corporate citizenship' is used in a variety of ways. In its narrowest sense it is used to refer to corporate philanthropy but it is also used as an equivalent term to CSR (Matten and Crane, 2003). Writers who take the 'equivalent view' include Reilly and Kyj (1994), Marsden (2000) and Zadek (2001). Some writers on corporate citizenship have focused on the political idea of 'citizenship', for example companies are viewed as independent legal entities with rights and responsibilities, in effect as 'citizens' of the states in which they operate (Andriof and Waddock, 2002, p. 26). Moon (1995, p. 7) argued that the notion of citizenship is a good way of expressing the social responsibilities of business because it emphasises the fact that companies have a stake in society (not just the market) which brings with it the concepts of duty and participation.

most of the literature on PS and packaging, voluntary environmental agreements and DFE[26].

- **Institutionalism:** Institutionalists approach CSR by placing the firm within a larger context, which includes the rules and norms that constrain the willingness and ability of organisational actors to pursue social objectives. Institutionalists are more likely to criticise CSR on the basis that managerial discretion to pursue social goals is limited by economic institutions which favour short term financial gain over long term sustainability. Institutionalists argue that there are circumstances in which self-regulation is *not* the most effective form of social control and that the state needs to play a stronger role in regulating business activities.

Research on CSR, product responsibility, VEA and DFE from these three perspectives is summarised in Table 5 (neo-liberalism), Table 6 (managerial liberalism) and Table 7 (institutionalism). The aim is to provide an overview of the approach taken by researchers within each category to corporate responsibility, the regulation of corporate social impacts, corporate social responsiveness and corporate social performance. Much of the research has been undertaken within the managerial liberal paradigm and tends to focus on micro-issues within the firm without any critical analysis of the role that political, cultural, legal and economic institutions play in influencing corporate social responsiveness. Institutionalists take a broader political economy perspective and are more likely to support increased government regulation. Some writers within this group, for example those using critical theory, have a more radical perspective and focus on the way that CSR is used to support existing distributions of power.

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[26] Writers in this group could also be described as 'functionalists', a term used in sociology to describe writers who seek to explain the status quo and to understand mechanisms for solidarity and stability; who are '...highly pragmatic in orientation, concerned to understand society in a way which generates knowledge which can be put to use' (Burrell and Morgan, 1979, p. 26). According to Burrell and Morgan, most research on organisational behaviour has been narrowly focused within a functionalist paradigm (pp. 25–26).

Table 5: Neo-liberal perspectives on corporate responsibility

Research focus and exemplar authors	Corporate social responsibilities	Regulating corporate social impacts	Corporate social responsiveness	Corporate social performance
Corporate social responsibility Friedman (1962), Johns (2003), Henderson (2001), Monks and Minow (2004), Block and Barnett (2005)	The primary social responsibility of business is to maximise profits for shareholders/owners within the constraints of the law.	Companies should be able to operate free of government interference because the market effectively regulates social impacts. Where necessary (based on cost-benefit analysis) governments should implement market based instruments (MBIs) to correct externalities.	CSR is pursued by companies when it can be justified in conventional cost-benefit terms.	Some neo-liberals use company case studies to illustrate why or how companies implement CSR (e.g. Monks and Minow, 2004) or why measures of corporate social performance are not valid (e.g. Johns, 2003).
Product responsibility and packaging Porter (2002; 2004), Productivity Commission (2006)	The emphasis is on the efficiency and effectiveness of the market in controlling social impacts rather than ethical or normative questions about responsibility.	Neo-classical economists accept the need for regulation to correct 'market failures' such as negative externalities generated by packaging waste. MBIs are believed to be more efficient and effective than PS or mandatory take-back schemes.	Neo-classical economics does not explain the behaviour of companies and individuals beyond the pursuit of self-interest. It assumes that companies will respond in a 'rational' way to market signals.	Most writers base their analysis on economic theory rather than empirical studies.

Table 6: Managerial liberal perspectives on corporate responsibility

Research focus and exemplar authors	Corporate social responsibilities	Regulating corporate social impacts	Corporate social responsiveness	Corporate social performance
Corporate social responsibility / corporate citizenship Carroll (1979), Wood (1991), Mitchell *et al.* (1997), Labatt (1991; 1997)	Companies should operate in accordance with social norms and values. Stakeholder theories make this more specific by claiming that companies should (and do) respond to the interests of stakeholders rather than to society at large.	Most writers prefer industry self-regulation to state regulation but accept that governments may need to play a guiding role.	Companies implement CSR for various reasons, e.g. to avoid government regulation; to maximise long term profitability ('enlightened self-interest'); in response to stakeholder expectations or because it is the 'right thing to do' (the ethical argument).	Performance should be evaluated by looking at relevant social issues, responsibilities (economic, legal, ethical, discretionary) and the 'responsiveness' of companies – their adoption of certain policies and programs in response to social demands.
Product responsibility and packaging European Environment Agency (EEA, 2005), OECD (1998; 2001; 2005)	Companies have a responsibility to manage the life cycle environmental impacts of their products, although this responsibility is shared with others in the product chain.	Products are an appropriate intervention point for environmental policy. Governments should design policies which are effective, efficient and transparent.	Corporate responsiveness is linked to the design of government policies and the incentives they provide companies to change their behaviour.	Performance tends to be evaluated by looking at the implementation of DFE within firms and macro-level indicators, e.g. packaging consumption and recycling rates.
Voluntary environmental codes and agreements Paton (2001; 2002), Cabugueira (2001), Börkey *et al.* (1998)	The emphasis is on the efficiency and effectiveness of voluntary codes and agreements rather than ethical or normative questions about responsibility.	Voluntary agreements between industry and government agencies should be used to achieve environmental policy objectives without the need for legislation because they are more efficient and effective.	Companies participate in VEAs to avoid more onerous legislation, but in doing so can achieve other benefits such as cost savings, increased knowledge and technology diffusion.	Evaluation frameworks examine environmental effectiveness as well as 'soft effects' such as information-sharing, organisational learning and innovation.
Design for environment Brezet and van Hemel (1997), Brezet and Rocha (2001)	Corporate responsibilities are not explicitly addressed although there is an implicit assumption that companies have a responsibility to reduce the life cycle environmental impacts of their products.	'Self-regulation' and market based instruments such as eco-labels are assumed to be more effective at promoting DFE than command-and-control regulations.	DFE is driven by internal and external stimuli such as market opportunities, customer demands and regulation.	Corporate performance is evaluated by examining which DFE strategies have been implemented (e.g. van Hemel and Cramer, 2002) and the extent to which DFE is integrated within management systems (Brezet and Rocha, 2001).

Table 7: Institutionalist perspectives on corporate responsibility

Research focus and exemplar authors	Corporate social responsibilities	Regulating corporate social impacts	Corporate social responsiveness	Corporate social performance
Corporate social responsibility Bakan (2004), Mitchell (1989), Danley (1994), Korten (1995), Burchell and Cook (2006), Jones (1999), Delmas and Toffel (2004), Welford (1997)	Companies have social responsibilities but are often unable to exercise them voluntarily due to institutional constraints. The CSR discourse has been strongly influenced by business interests to protect their power and legitimacy and because it avoids the need for radical change.	The state needs to play a stronger role in regulating the social impacts of corporations because self-regulation only achieves limited outcomes.	Corporate responsiveness depends on factors which are both external and internal to the firm. Critical theorists argue that managerial discretion to implement CSR is extremely limited because of the nature of capitalism, which emphasises profit and growth.	Company case studies have been used to explain CSR and to illustrate the inherent contradictions within the CSR literature. Corporate behaviour needs to be investigated within the context of broader social, economic and political systems.
Product responsibility and packaging Bailey (1999; 2003), Ackerman (1997), Sinclair (2000), Lindhqvist (1999), Fishbein (2000)	Product manufacturers (brand owners) are in the best position to influence design and therefore should be forced to take responsibility for the full life cycle costs of their products. This would provide them with a financial incentive to take action.	Companies cannot be relied upon to implement product responsibility because in most cases it is not in their commercial interests to do so. Regulation is required, although powerful business interests will often shape the policy agenda.	PS responsiveness within the packaging industry is limited by financial disincentives, such as the low value of packaging in the recycling stream, and the high priority given to product protection and integrity.	Performance has been evaluated by looking at the implementation of certain waste management practices within firms (Bailey, 2003) as well as macro trends in consumption and recycling.
Voluntary environmental codes and agreements Sullivan (2005), Gunningham and Rees (1997), Gunningham and Sinclair (2002)	The emphasis is on the efficiency and effectiveness of voluntary codes and agreements rather than ethical or normative questions about responsibility.	Voluntary agreements are not always the best approach to environmental policy, depending on the specific institutional environment within which firms operate.	Companies and industry associations support voluntary agreements to avoid more stringent regulations. The challenge is to differentiate genuine responses from 'business as usual'.	Evaluation frameworks include environmental effectiveness, 'soft effects' and innovation, but policy processes and outcomes also need to be transparent and acceptable to stakeholders.
Design for environment Boons (2002), Baumann *et al.* (2002)	Corporate responsibilities are not explicitly addressed, although there is an implicit assumption that companies have a responsibility to reduce the life cycle environmental impacts of their products.	The state is acknowledged as an important actor in driving DFE within firms.	Responsiveness is linked to factors internal to the firm, product chain relationships and social/political factors.	Some empirical research has been undertaken, using case studies to test the validity of a product chain conceptual framework (Boons, 2002).

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Corporate social responsibility

Within the managerial liberal paradigm, writers on business in society, corporate citizenship, stakeholder theory and business ethics argue that corporations have obligations to society which go beyond profit maximisation. Carroll (1979) distinguished between four types of responsibilities: legal, economic, ethical and discretionary, although most writers focus on responsibilities which go beyond a company's conventional economic interests. They acknowledge that societal obligations are constantly changing[27] and therefore businesses need to implement strategies which make them responsive to societal demands (e.g. Sethi, 1979). Issues change over time and differ between industry sectors. For example, a manufacturer is likely to be more interested in recycling than a bank. Companies need to respond when there is an 'expectational gap', i.e. a gap between stakeholder expectations and the actual or perceived performance of the corporation (Preston and Post, 1981; Wartick and Mahon, 1994). This view is linked to what has become known as 'legitimacy theory', the idea that in order to operate successfully, corporations have to work within the bounds of socially acceptable behaviour (O'Donovan, 2002).

Public policy, defined as legislation, norms and standards, provides companies with a useful guide to their social responsibilities (Preston and Post, 1975). CSR is particularly important during the 'zone of discretion'—the period during which something is neither required by law nor entirely voluntary (Ackerman, 1973). Swanson and Niehoff (2001, pp. 107-8) provide a strong cautionary note about society's expectations of business, stating that '[w]hat is required, expected or desired of business will depend on the issue at hand and whether economic and ecological responsibilities are seen as mutually reinforcing or conflicting' and '[g]roups in society often disagree on what constitutes required, expected or desired corporate conduct'.

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[27] Ackerman and Bauer (1976) observed that by the mid-1970s corporate responsibilities had shifted from social issues which are external to the corporation, such as poverty, to those which are directly linked to a business's operation, such as pollution. Many of the issues which were voluntary or discretionary 'social responsibilities' in the 1960s and 1970s have been institutionalised in legislation and have therefore become a normal part of doing business. The 1990s saw the emergence of activist pressure around issues related to globalisation and outsourcing, including human rights abuses, labour rights, corruption and environmental degradation (Waddock, 2004).

Stakeholder theorists have attempted to clarify social responsibilities by arguing that managers have an obligation to meet the needs and expectations of diverse 'stakeholders' rather than society at large (e.g. Donaldson and Preston, 1995; Jones, 1995; Langtry, 1994). Stakeholders are defined as groups or individuals who can influence, or are influenced by, a company's operation (Freeman, 1984). Supporters of stakeholder theory oppose the traditional neo-liberal view of the firm as a discrete organisation whose primary obligation is to make money for its owners or shareholders. They have described the corporation as 'a network of relationships' with 'employees, customers, suppliers, communities, businesses and other groups who interact with and give meaning and definition to the corporation (Wicks *et al.*, 1994, p. 483) and as 'a constellation of cooperative and competing interests possessing intrinsic value' (Donaldson and Preston, 1995, pp. 66-67).

Another guide to social responsibility is provided by writers on business ethics, who argue that firms cannot always rely on social control mechanisms to guide their behaviour. Companies need to be aware of their moral obligations or duties where social expectations are unclear (Swanson, 1995). This applies particularly to transnational corporations operating in countries which have different standards to their own (Donaldson, 1996). Pava and Krausz (1995, p. 111) argue that CSR programs are only legitimate under certain circumstances: when they are based on strong local knowledge, are designed to ameliorate problems for which the corporation is directly responsible, all stakeholders agree about the means and the ends, and the program will lead to enhanced financial performance.

The managerial liberal perspective on CSR is opposed by both neo-liberals and institutionalists, though for different reasons. Neo-liberals argue that the only social responsibility of a corporation is to maximise profits for shareholders within the constraints of the law. The most famous advocate of this position is Milton Friedman, who argued that 'there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud' (Friedman, 1962, p 133). As a result, CSR can only be justified if it

contributes to shareholder value and is therefore based on 'enlightened self-interest'[28]. In a paper published for the NZ Business Roundtable, David Henderson (2001) described CSR as a 'radical doctrine' which broadens the conception of private business and the way it should be conducted and most likely 'impairs enterprise performance'. However, this is contradicted by an increasing amount of statistical and case study evidence that CSR policies are linked to strong financial performance (e.g. Benn *et al.*, 2006; Orlitzky, 2005; Pava and Krausz, 1995).

Some neo-liberals also believe that a company is *legally* required to maximise financial returns to its shareholders, and that this prohibits them from taking any action that would sacrifice their own interests for those of others. The Australian Parliamentary Joint Committee on Corporations and Financial Services (2006) responded to this argument by stating that the directors of a company are required to act in the best interests of the corporation, which might not necessarily be the same as acting in the best interests of the shareholder. In their view, companies can legally take action to address environmental and social issues when this 'is likely to lead to the long term growth of their enterprise' (p. 53).

In contrast to neo-liberals, who oppose CSR because they do not believe that companies have any responsibilities to society beyond profit maximisation and compliance with regulations (which should be minimal), many institutionalists support the basic principle of CSR but argue that the capitalist system and the design of the corporate institution itself make it extremely difficult to implement in practice (e.g. Bakan, 2004; Hawken, 1993; Korten, 1995).They argue that the solution is not self-regulation, but rather a redesign of corporation laws and/or increased regulation of business activities.

Product responsibility

There are some references to product responsibility in the mainstream (managerial liberal) CSR literature. For example, 'product safety' is one of the six social issues mentioned in Carroll's (1979) corporate social performance (CSP) framework and PS is one of the 'product impact' indicators listed in a report published by the World Business Council for

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[28] In Bakan's (2004) words, Friedman only tolerates CSR when it is insincere: 'The executive who treats social and environmental values as means to maximise shareholders' wealth—not as ends in themselves—commits no wrong' (p. 34).

Sustainable Development (Holme and Watts, 2000). PS was also one of the seven priority issues identified in a survey of the corporate citizenship practices of Australia's top 500 companies (Glazebrook, 2001). This survey examined the annual reports, CEO statements and other publications of these companies to identify which companies describe themselves as corporate citizens and how they put this commitment into practice.

Most writers on PS and EPR assume that companies have a responsibility to address the environmental impacts of their products. However, this responsibility is not justified, as it is in the CSR literature, on the basis of ethical, legitimacy or stakeholder arguments. Instead, product responsibility is promoted as a policy tool to address environmental externalities.

Product responsibility is opposed by neo-liberals on the basis of neo-classical economic theory[29]. Normative or ethical questions (such as corporate social responsibility) are not addressed within economic theory because the orthodox view is that the firm is only motivated to maximise shareholder wealth and 'it is futile to expect more ethical or responsible behaviour from businesses' (Tomer, 1994, p. 127). This perspective is evident in the work of the Australian Productivity Commission (e.g. 2006) which regards product-related environmental impacts as a form of 'market failure' that should be tackled by policies which 'internalise' social costs in market prices (discussed further below). According to neo-classical environmental economists, waste reduction and recycling should be 'optimised', with a clear understanding of marginal costs and benefits, rather than pursued as objectives in themselves (Porter, 2002).

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[29] There is an extensive literature on the theory and application of neo-classical economics to environmental problems (see for example Baumol and Oates, 1975; Common, 1996; Markandya and Richardson, 1992; Pearce, 1976; Tietenberg, 2004). Environmental economists are concerned that prices should reflect 'true economic costs', including all the costs of resources used and any associated externalities such as pollution or greenhouse gas emissions (Productivity Commission, 2005, p. 46). It follows that the solutions to environmental problems lie in correcting market failures through economic (or market-based) instruments that are designed to achieve an environmental objective by changing relative costs. Market-based instruments which are used as a waste policy tool include landfill taxes, household waste disposal and recycling charges, advance disposal fees, deposit-refund schemes and recycling subsidies (Fullerton and Raub, 2004; Porter, 2002; Porter, 2004).

Regulating corporate social impacts

Regulatory options

Managerial liberals, neo-liberals and institutionalists have very different perspectives on the regulation of corporate social impacts. Managerial liberals largely support self-regulation, albeit with a 'guiding' role for governments; neo-liberals believe in regulation by the market; and institutionalists tend to support more government regulation.

Managerial liberals assume that companies have both the ability and the willingness to implement voluntary social initiatives and therefore prefer self-regulation. CSR is viewed as 'a form of control of businesses, an alternative to the control by markets or government' (Tomer, 1994, p. 128). However, governments may be required to play a supporting or guiding role, for example through participation in voluntary agreements with industry. These are widely used to promote social and environmental goals such as energy efficiency, waste reduction or reduced greenhouse gas emissions by facilitating information exchange and organisational learning (Burritt, 2002; Cabugueira, 2001; Paton, 2002; Sullivan, 2005). Porter and van de Linde (1995b; 1995a) argue that properly designed environmental regulation promotes innovation and therefore is good for business. For example, packaging wastes resources and adds cost, but well designed regulations can alert and educate companies to inefficiencies and potential areas for improvement (Porter and van de Linde, 1995a).

In contrast, neo-liberals believe that the market will regulate business activities as long as prices paid by producers and consumers reflect all private and social costs such as environmental degradation. Drawing on neo-classical economic theory, they argue that markets operate more efficiently with minimal government intervention but, if necessary, favour MBIs rather than voluntary measures to address environmental externalities. Neo-classical economists argue that waste policies which rely on voluntary responsibility, such as PS, are unlikely to achieve optimal levels of waste reduction because they do not provide companies with sufficient incentive to change their practices, so that any environmental improvements are likely to be positive, but minimal (Palmer and Walls, 2002; Porter, 2004). They believe that priority should be given to MBIs such as volume-based charging for household wastes or advance disposal fees (ADFs) because in theory at

least, they are more efficient and effective[30]. However, implementation problems have meant that they are rarely used in practice[31].

Neo-liberals also oppose CSR because they believe that social issues are a matter for government, not managers. Their argument is that:

> Managers, acting in their professional capacity, ought not to concern themselves with the public good: they are not competent to do it, they lack the democratic credentials for it, and their day jobs should leave them no time even to think about it ... The proper guardians of the public interest are governments, which are accountable to all citizens ('The ethics of business', *The Economist*, 22 January 2005, p. 18.).

Institutionalists support more government regulation because they believe that the nature of the capitalist system constrains the ability of companies to implement CSR. For example, Bakan (2004, p. 73) argued that the corporation is both 'deliberately programmed' and 'legally compelled' to externalise costs without considering the impacts that these costs might have on people, communities or the natural environment. Self-regulation will only be effective in specific circumstances, for example when strong standards of 'industry morality' can be developed and institutionalised in corporate decision-making (Gunningham and Rees, 1997, p. 406). A genuine threat of state regulation is also considered to be important for self-regulation to work. In their analysis of the failure of a co-regulatory packaging policy to be established in Ontario, Canada, in the mid-1990s, Chang *et al.* (1998) argued that the soft drink industry walked away from

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[30] Porter (2004) has suggested that market failures that affect recycling are on the supply side, i.e. householders supply too much waste because municipal waste disposal services are effectively free, and companies provide too much packaging and hard-to-recycle packaging because they do not have to pay for disposal or recycling. He advocates volume-based charging for household waste disposal at rates which would reflect the full social costs of disposal; this would provide householders with a financial incentive to buy recyclable products and to separate them for recycling after use (Porter, 2002). The 'social cost' of waste is different to the 'private cost', which is the amount paid by the waste generator to dispose of it; the social cost is the total cost of disposal including hidden subsidies and externalities. ADFs which reflect the marginal social costs of disposal should also be introduced because they provide manufacturers with an incentive to reduce packaging waste (Porter, 2002).

[31] There are a number of possible reasons for this. Efforts to use MBIs to reduce waste and increase recycling have not been particularly effective, and governments have been sensitive to the political impacts of new taxes (Ackerman, 1997). Other barriers include the complexities involved in designing MBIs and potential conflicts with other economic and social policy objectives (Arnold, 1995). In Australia there has been some interest in MBIs, particularly for environmental policy, but all of the environment protection agencies had 'firmly rejected' this approach, largely because implementation would have been impractical with the available regulatory resources (Grabosky and Braithwaite, 1986).

the proposal when they realised that the new provincial government was intent on environmental deregulation. The industry originally proposed a voluntary recycling program, supported by back-up legislation to catch free-riders, as an alternative to more expensive options, such as mandatory use of refillable containers or a German-style take-back program. However, when it was clear that the government was unlikely to impose any such regulation, the industry had no incentive to pursue the co-regulatory proposal.

Policy evaluation

There are also significant differences in the way that the three groups evaluate public policy. Neo-liberals tend to evaluate the effectiveness of policies in correcting market failure and their efficiency in cost-benefit terms. For example, Porter (2002, pp. 31–33) has argued that policies such as the German Packaging Ordinance are inefficient because collection programs run by manufacturers duplicate municipal programs and provide no incentive for householders to recycle. Glachant (2004) took a slightly different view: he suggested that ADFs which are introduced as part of an EPR scheme (as they were in Germany) can influence manufacturers to design more lightweight and recyclable packaging, but these charges must fully internalise waste disposal costs and must be linked to each producer's waste collection and processing costs.

Writers on product responsibility from a managerial liberal perspective have focused on effective public policy design and evaluation (e.g. Börkey *et al.*, 1998; Holmes, 1999; OECD, 1998; OECD, 2001; OECD, 2005). For example, Walls (2006) argued that product responsibility policies tend to be poorly designed because they often have multiple environmental objectives, such as waste reduction, reduction in hazardous components of waste, reduced pollution during manufacture, reduced material consumption and promotion of DFE. Economic theory suggests that one policy instrument cannot be used to efficiently accomplish all of these objectives. Walls also suggested that PS objectives are often too vague because they call on companies throughout the supply chain to share responsibility for the environmental impacts of products: 'The problem here is the broad range of "environmental impacts" of products and the lack of clarity in exactly what shared responsibility means' (Walls, 2006, p. 6). The emphasis of many studies is on the overall costs and benefits of a policy, for example comparing operational costs with environmental benefits achieved, with little attention paid to corporate

responsiveness or the role of public policy in driving changes in corporate policy and behaviour. However, several studies address the effectiveness of policies in stimulating DFE impacts (e.g. Lura Consulting *et al.*, 2002; OECD, 2005).

The literature on voluntary environmental agreements, mostly within a managerial liberal paradigm, suggests many different criteria for policy evaluation including environmental effectiveness, economic efficiency, administration and compliance costs, dynamic efficiency and innovation, flexibility and equity (for a comprehensive review see Sullivan, 2005). Sullivan takes a broader institutional perspective by proposing several criteria which are rarely mentioned by other writers, particularly those in the economics field: the acceptability of the policy to different stakeholders, inclusiveness and public participation, and public policy issues such as implications for the democratic process. Börkey and Lévêque (2000, p. 52) have noted that the 'biggest political threat to voluntary approaches arises when they lack credibility in the eyes of the public and non-governmental organisations'.

An issue of critical importance to this thesis is the impact of voluntary agreements on corporate policy and practice, and the business outcomes of any change in behaviour. There is some evidence of commercial benefits to participating firms, such as cost savings, technology transfer and 'learning by doing'. This contradicts conventional economic theory, which assumes that, by definition, firms must be perfectly efficient (Paton, 2002). Drawing on economic theory and organisational research, Paton (2001; 2002) has argued that voluntary agreements can help to overcome the widespread existence of knowledge, coordination and technological barriers to change within firms, which limit their capacity to adopt environmental practices despite the potential for efficiency gains. Ramesohl and Kristof (2002, p. 347) have argued that voluntary agreements are not likely to create tangible, short-term benefits, but may contribute to mid-to-long-term improvements in efficiency by supporting organisational learning and information sharing between firms. However, empirical research on the impact of a voluntary agreement in the Norwegian plastic packaging industry (Røine and Lee, 2006) concluded that the scheme had had relatively little impact on environmental innovation. While 60% of survey respondents had reduced the amount of material used in packaging and 36% had replaced hazardous substances, the biggest single driver for change was cost reduction.

Many institutionalists take a different approach to policy analysis by focusing on public policy-making processes. The European Packaging Waste Directive was used as a case study to examine the use of MBIs and voluntary agreements in the European Union (Bailey, 2003). By examining the ways the European Directive has been transposed into national policies, Bailey highlighted the importance of institutional and political factors in shaping packaging policies. He observed that, in designing MBIs and voluntary agreements, governments have 'been informed by a combination of scientific evidence, persuasive policy networks (including epistemic communities), political and economic ideology, and practical exigencies (Bailey, 2003, p. 41). Comparing packaging policies in Germany and the UK, he concluded that 'the German government placed primary emphasis on stringent environmental protection, whereas the British government has prioritised the mitigation of economic impacts arising from the EU environmental policy' (Bailey, 2003, p. 85).

The development of packaging policy in the UK has been analysed by examining dynamic policy networks. As pressure mounted on the government to develop a response to the European Directive, non-packaging industry interests were excluded from negotiations and conflicts emerged within the packaging chain between sectors with different objectives and interests (Eden, 1997; Nunan, 1999). A study of municipal waste policy in the UK also examined the institutions and actors involved in policy making, but highlighted the importance of an even broader analytical framework:

> [The policy-making process] takes shape in a political, social and cultural context in which the range of options for policy is already circumscribed by existing commitments, policy priorities, assumptions and relations of power that extend well beyond government, not only into the economic interests of business but also into the power of the collective expectations and values of wider society (Bulkeley *et al.*, 2005, p. 1).

The self-regulatory PS scheme negotiated between industry and government in Ontario has been explained in terms of the relative power and influence of business interests as well as effective cooperation between industry lobbyists; concerns within local government that producer responsibility would threaten municipal jobs; and a lack of political power and waste management expertise within environmental groups (Gaynutdinova, 2001).

Corporate social responsiveness

How and why do firms implement CSR?

The concept of 'corporate social responsiveness' refers to the strategic approach implemented by companies in response to social issues (Ackerman and Bauer, 1976; Frederick, 1994; Näsi *et al.*, 1997; Sethi, 1979; Wartick and Cochran, 1985). It is the 'action phase of management responding in the social sphere' (Carroll, 1979, p. 502). The European Commission (2001, p. 17) has observed that, while companies increasingly recognise social responsibilities, 'many of them are yet to adopt management practices that reflect it', and argued that values need to be translated into day-to-day strategies and actions across the organisation (European Commission, 2001). In Lyster's view (2007, p. 314), companies are expected to 'assess their environmental and social impacts; put in place policies and management systems … to deal with these impacts; set improvement targets; engage in stakeholder engagement; and report on their impacts and activities'. Ackerman (1973) identified a number of barriers to the implementation of CSR in large companies, including the divisional structure that gives operational autonomy to divisional managers and management systems that measure and reward financial rather than social outcomes. He concluded that companies cannot rely on a specialist to implement a particular social policy because that person's powers of persuasion, corporate policy and external threats are often insufficient to convince line managers to change. Rather, it needs to be institutionalised by committing appropriate resources and modifying procedures to ensure that all managers have an incentive to be more responsive.

From a neo-liberal perspective, CSR can be regarded as a strategy used to cloak actions which can be justified entirely in terms of company self-interest (Friedman, 1962). In a similar vein, a representative of conservative think tank, the Institute of Public Affairs (Johns, 2003; 2005), has argued that CSR has little to do with public policies such as environmental sustainability or human rights—companies pursue non-commercial aspects of performance in order to achieve a competitive advantage. This is the view that companies do not have any social goals at all but simply implement social programs in order to achieve economic goals, i.e. 'it pays to be good' (Mintzberg, 1983).

Managerial liberals link corporate responsiveness to the expectations of a diverse range of stakeholders, including employees, customers, investors, non-government organisations

and governments, not just shareholders. In a major Canadian study, Clarkson (1995) and his research team found that managers understand social responsibilities in terms of the processes of production, marketing, finance, accounting and human resources, and their obligations and responsibilities to particular constituencies such as customers, shareholders and employees. According to stakeholder theory, managerial decision making should (and does) take into account the interests of a wide range of 'stakeholders'.

Instrumental stakeholder theory examines the connections, if any, between the practice of stakeholder management and the achievement of corporate goals (Donaldson and Preston, 1995). Theoretical studies have linked stakeholder engagement to risk management (Andriof and Waddock, 2002) and the protection of critical resources (Hill and Jones, 1992). Empirical research by Fayers (2005) concluded that corporate environmental reporting is a strategic response by organisations to protect their reputations by responding to the demands of external environmental stakeholders. According to Jones (1995, p. 430), '[c]ertain types of corporate social performance are manifestations of attempts to establish trusting, cooperative firm/stakeholder relationships and should be positively linked to a company's financial performance'. There is certainly evidence of a positive correlation between CSR and financial performance, which appears to be due to improved corporate reputation (Orlitzky, 2005). However, social responsiveness only appears to improve reputation when the company is responding to a relevant issue, i.e. one which is related to their core business (Brammer and Pavelin, 2006). Another possible explanation for the impact on financial performance is that companies only choose to pursue social goals which are consistent with financial goals and are therefore likely to out-perform non-socially responsive firms in the long term (Pava and Krausz, 1995). A study of German corporations concluded that their responsiveness in adopting environmental policies is linked to two variables: environmental risks inherent in their operations, assumed to correlate with the level of regulatory and public scrutiny, and market benefits that the company can achieve from environmental innovation (Steger, 1993; cited in Gunningham *et al.*, 2003, p. 30).

Tomer (1994) has argued that stakeholder theory is not inconsistent with commercial self-interest. Companies that take a longer-term view are willing to sacrifice some short-term profit to minimise 'legitimacy costs' which they might incur if they fail to meet stakeholder expectations. These could include the higher costs of meeting regulatory

requirements if governments decide they have to legislate, or damage to corporate reputation which might result from external pressure on the organisation (Tomer, 1994).

Another perspective is provided by research on environmental compliance and participation in voluntary agreements. Cabugueira (2001) found that companies participate in voluntary agreements because of a credible threat of regulation, commercial pressures linked to the environmental demands of stakeholders, and the possibility of efficiency gains. Participants may also be motivated by an interest in appealing to consumers who demand green products, and the possibility of gaining an edge over competitors (Videras and Alberini, 2000).

Institutionalists link responsiveness to both internal and external factors. While companies may be subject to similar pressures from external stakeholders, their responsiveness will vary according to institutional drivers at a socio-cultural, national, industry, firm and intra-firm level (Jones, 1999). Gunningham *et al.* (2005) also concluded that corporate compliance with environmental regulations is driven by a range of factors. These include the fear of prosecution, protection of their social licence to operate because it is seen as 'the right thing to do', supply chain pressure, management attitudes and to save money. However, important differences were noted between companies, and these were attributed to both industry sector and company size. Large chemical manufacturers, for example, were more likely than electroplaters to go beyond compliance for reasons relating to risk management and the need to maintain the trust of local communities. The authors attributed this sensitivity to their greater visibility and sophistication, as well as their history of well-publicised environmental disasters. Large chemical companies were also more likely to be influenced by management attitudes and corporate culture than small-to-medium sized companies in the same industry (Gunningham *et al.*, 2005). In an earlier study of environmental policies and practice in the pulp and paper industry, Gunningham *et al.* (2003) concluded that companies are driven or constrained by stakeholders who influence their economic, legal and social 'licence to operate'. However, the influence of these stakeholders depends on an 'intervening variable'—the attitudes of managers.

Writers with a more critical perspective suggest that CSR is used for political purposes to support the power and legitimacy of corporations, often to the detriment of weaker groups

in society (Banerjee, 2005; Blowfield and Frynas, 2005; Mitchell, 1989) or to deflect public and government attention from more socially damaging activities (Beder, 2000).

Implementing product responsibility

Most of the policy literature on PS assumes that companies have the ability and the willingness to control the environmental impacts of their products voluntarily. According to this view, PS is an element of 'proactive environmental management' which can make companies more efficient and competitive (Berry and Rondinelli, 1998).

A number of writers have discussed strategies for the management of DFE (e.g. Brezet and Rocha, 2001; Charter, 2001) such as integration of DFE within environmental management systems and product development processes. Barriers to implementation which have been identified include a lack of resources, poor communication, organisational structures and a culture which favour 'business as usual', individual inertia, lack of expertise in and understanding of environmental issues, and the perceived costs of change (Charter, 2001). Success factors which have been identified include management commitment and support, accessing the technical and environmental expertise of suppliers, environmental education and training of product development personnel, the presence of an environmental champion, the use of cross-functional product development teams, integration of DFE in the company's standard product development process, and implementation of company-specific DFE rules and guidelines (Johansson, 2002). A survey of DFE in British manufacturing companies (Pujari *et al.*, 2003) concluded that the 'eco-performance' of DFE (i.e. the extent to which DFE results in products with lower environmental impact) is linked positively to senior management support, the involvement of an environment manager in design projects, supplier involvement, effective groundwork and the use of environmental impact databases. Van Hemel and Cramer (2002) investigated the implementation of DFE strategies within small-to-medium-size firms involved in a Dutch DFE program and concluded that they were influenced by a range of internal and external stimuli and barriers. Internal stimuli such as opportunities for innovation, an expected increase in product quality, and potential market opportunities, were found to be a stronger driver of change than external stimuli. The most influential external drivers were customer demand, government legislation and industry sector initiatives. Barriers which were identified included the perception that either it was not the

company's responsibility, there was no clear environmental benefit, or no alternative solution was available (van Hemel and Cramer, 2002).

Within an institutional framework the use of specific DFE strategies can be understood as the result of rational decisions which are influenced by power and dependency relations in the product chain and take into account the costs and benefits of implementation (Boons, 2002). The packaging industry has some specific characteristics which can make DFE both difficult and costly. A survey of Canadian manufacturers (Quinn and Sinclair, 2006) found that most had no plans to implement DFE, citing reasons such as the need to meet health and safety regulations which make reuse and recycling difficult, lack of choice in materials and products, the need to follow industry 'norms' to avoid losing market share, and the 'top priority' given to packaging functionality in order to protect the integrity of the product. The authors of this study concluded that a regulated EPR program must be introduced to provide companies with an incentive to assume more responsibility for the packaging they put into the market-place.

A review of the DFE literature by Baumann *et al.*(2002) found that most writers have a narrow disciplinary focus and fail to examine links between company processes, the supply chain and broader policy issues (Baumann *et al.*, 2002). They suggested (p. 22) that researchers should use a more systemic perspective:

> In such a perspective, the internal process of product development is related to other processes within the firm, as well as to processes of competition and cooperation with the economic actors in the product chain. In addition, a systemic perspective calls for linking these processes to the formulation of governmental policy programmes. This is important because such programmes can provide important stimuli (and barriers) to the development of green products.

Evaluating corporate social performance

Corporate social performance

'Corporate social performance' (CSP) models have been developed from a managerial perspective to both explain corporate social behaviour and provide a framework for evaluation (Carroll, 1979; Sethi, 1975; Wartick and Cochran, 1985; Wood, 1991). Carroll's (1979) model included three elements: social issues, corporate responsibilities and corporate responsiveness. Carroll rated responsiveness strategies using a four-point

scale from 'reaction' through to 'defence', 'accommodation' and 'proaction'. Labatt (1991) revised Carroll's terminology and definitions for different levels of responsiveness and adapted his four-point scale to classify responsiveness. In order to test her framework Labatt focused on discretionary environmental management, and developed nine indicators[32] and a measurement scale for each indicator. A number of companies were studied to test the framework, using quantitative scores to measure responsiveness against each indicator.

However, CSP models have been criticised for ignoring the integral responsibilities of companies that are associated with impacts on stakeholders (Waddock, 2004) and for using language such as 'social responsibilities' and 'social responsiveness', which have been generated within academia but are not related to the way that managers actually think and work (Clarkson, 1995). Carroll (1994) observed that while CSP had emerged as the dominant paradigm within the 'business in society' field, it needs to be embedded in a 'systems' and stakeholder framework to encompass the totality of interactions between the organisation and its stakeholder environment.

Wood (1991) developed another CSP model in order to provide a more 'coherent, integrative framework for business and society research' (p. 691). She argued that in order to assess a company's social performance it was necessary to examine '…the degree to which principles of social responsibility motivate actions taken on behalf of the company, the degree to which the firm makes use of socially responsive processes, the existence and nature of policies and programs designed to manage the firm's societal relationships, and the social impacts (i.e. observable outcomes) of the firm's actions, programs and policies' (p. 693). Wood's model integrated stakeholder theory with other research on CSR because, in her view, this was important in clarifying to whom a business is responsible and in reducing the abstract idea of 'society' to the stakeholders who are related to the firm's interests, operations and actions. This view was supported by a study of Finnish and Canadian forestry companies, which concluded that issues are not 'floating about, agitating for change, but are connected to stakeholder groups that apply pressure' (Näsi *et al.*, 1997, p. 317)

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[32] These indicators were the board of directors, the environmental affairs function, internal recycling, product waste recycling, energy conservation, philanthropic donations to environmental causes, community support, environmental impacts of a company's products or services and environmental statements or sections in the annual report (Labatt, 1991).

In a major Canadian study, Clarkson (1995) concluded that stakeholder theory was more useful for the evaluation of CSP than the various frameworks developed within the 'business in society' field. He argued that the four dimensions of CSR (economic, legal, ethical and discretionary) did not provide a useful basis for measuring social responsibility with reasonably accessible corporate data, and that definitions of corporate social responsibility were 'elusive constructs' which did not provide a framework for the systematic collection, organisation and analysis of corporate data (p. 92) . He concluded that CSP can be analysed more effectively by using a framework which links corporate issues to relationships with specific stakeholders, and that it was important to distinguish between different levels of analysis. For example, policy makers determine whether or not something is a 'social issue' which justifies legislation or regulations at an institutional level. Managers in corporations make decisions at an organisational or an individual level about the extent to which they implement policies or programs in response to stakeholder expectations. Performance should be analysed by looking at what companies are actually doing—their policies and practices—rather than their motivation for doing it, which is irrelevant.

The evaluation of corporate social performance from an institutional perspective includes consideration of the political and cultural factors which influence behaviour. For example, the performance of firms has been linked to the economic, social and political context within which they operate, including the relative power of non-government organisations (NGOs), which influences both the issues that companies choose to respond to and the practices they implement (Baughn *et al.*, 2007; Doh and Guay, 2006). Näsi *et al.* (1997) have explained the emergence of corporate issues and responsiveness in terms of stakeholder theory, but they argue that a more nuanced approach is needed because, while companies do respond to their most powerful stakeholders, this is linked to resource dependencies as well as reputational effects, media dynamics and government–business relations. In their view, a useful framework for analysis needs to build on theories of inter-organisational power. They also argue that research on CSR has failed to explain how issues and stakeholder groups 'emerge from the interaction and negotiation of actors' (pp. 318–19). This requires an understanding of institutional processes that influence issue life cycles (Näsi *et al.*, 1997). In a similar vein, Hoffman (2001) has argued that because stakeholder theory focuses on the influence of individual groups, it fails to acknowledge

the ways that multiple stakeholders interact to influence corporate practices within an 'organisational field'[33]. This gap is starting to be addressed by a new focus on the politics of stakeholder influence[34]. For example, King (2008) has suggested that the influence of secondary stakeholders (those without a direct contract with the firm, such as NGOs) originates in the collective action of potential stakeholders.

Product responsibility performance

Some evaluations of PS and EPR programs for packaging are consistent with a managerial liberal approach, but most pay little attention to corporate policies and performance. While guidelines have been provided on evaluating the costs and benefits of EPR policy (OECD, 2005) these include only limited advice on the evaluation of corporate performance. One of the criteria in the guidelines is the extent to which EPR programs have encouraged DFE initiatives, and the extent to which these initiatives have reduced waste management costs. However, one problem with this type of evaluation is that a judgment would need to be made on innovations that would have taken place in the absence of the EPR policy (OECD, 2005). Glachant (2004, p. 184) has argued that products change continuously regardless of policy interventions, and the aim of policy is not to initiate product change, but to 'modify the pattern of business-as-usual product change in order to position goods into less waste-intensive innovation trajectories'. Labatt (1997) evaluated the responsiveness of the Canadian packaging industry to a voluntary PS program, the *National Packaging Protocol*, by developing a scale to measure changes to packaging for each company's top five products, and then by using this framework to survey companies about their changes to packaging. The study correlated packaging waste reduction initiatives to specific company characteristics such as size and product orientation, but Labatt acknowledged that further research was needed to explain how and why decisions about environmental issues are made. She suggested that in order to do this it might be useful draw on complementarities between CSR and organisational theory, and that 'such knowledge is essential for the formulation of effective public policies (Labatt, 1997, p. 88).

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[33] The concept of an organisational field is from new institutional organisational theory, and is discussed further in Chapter 3.

[34] The politics of stakeholder influence was the theme of a special issue of *Business & Society*, edited by Frank de Bakker and Frank den Hond in March 2008 (47(1)).

Conclusion

The aim of this chapter was to review the existing literature on product responsibility within the context of broader debates about corporate social responsibility, responsiveness and performance and the role of the state in regulating corporate social impacts. In doing so, it sought to understand different theoretical approaches to the study of CSR which could be used to study the institutional development of PS within the Australian packaging industry.

The first question which was identified—*How is corporate product responsibility defined and what are the implications for corporate policy and practice?*—has been partly answered by distinguishing between PS and EPR. PS is generally interpreted as an environmental management principle which acknowledges that companies are responsible, at least in part, for the environmental impacts of their products. It is implemented as a form of industry self-regulation, often through voluntary agreements with government, in contrast to more regulated and targeted EPR approaches. However, only limited guidance is provided on the specific implications of PS for corporate policy and practice.

The second question—*How effective have product responsibility policies such as the NPC been in driving changes in corporate behaviour which reduce the environmental impacts of packaging?*—has also been partly answered. Previous evaluations of the NPC have focused on compliance and have identified significant differences in the responsiveness of companies. However, they have failed to explore in any detail how and why companies are implementing (or not implementing) PS policies and practices. Research on other product responsibility policies in Europe and Canada indicate that regulated schemes are likely to be more effective than voluntary PS schemes because they provide firms with a greater incentive to change their behaviour. However, Labatt (1997) suggested that in order to design an effective packaging policy we need a much better understanding of how and why companies respond to measures which are largely voluntary.

The third question—*How have other researchers investigated the implementation of product and other social responsibilities?*—was answered by differentiating between neo-liberal, managerial liberal and institutional analyses. Neo-liberal approaches to product responsibility and behaviour are inadequate for several reasons. First, they provide no

explanation for the fact that some companies have been more responsive to PS than others. Conventional economic theory assumes that all companies behave in a similar way to maximise profit, but this is clearly not the case. Second, they cannot explain why governments around the world, including those in Australia, have chosen to promote voluntary PS schemes rather than the supposedly more efficient MBIs; and why they also continue to advocate high levels of recycling rather than 'optimal' levels which are, at least in theory, determined through market forces. Neo-liberal approaches therefore fail to explain the behaviour of companies and governments in addressing product waste and packaging issues.

The managerial liberal literature can contribute to the thesis in several ways. First, it suggests a number of ways that corporate responsibilities can be identified, for example by examining public policy requirements, the expectations of stakeholders and 'legitimacy gaps'. Second, it suggests reasons why companies might participate in voluntary environmental activities, for example to avoid regulation, to protect their reputation, achieve commercial benefits or to meet the expectations of stakeholders such as investors and customers. Finally, it provides some useful conceptual tools for analysing PS performance. The CSP framework can be used to evaluate corporate policies and practices, while stakeholder theory may help to explain corporate responsiveness.

However, the managerial liberal perspective has limitations. It provides little insight into the way that social issues evolve and how they become institutionalised as a corporate responsibility. It starts to explain why companies behave in certain ways, for example through reference to stakeholders, but does not examine in any detail the role of institutional drivers or internal dynamics in the decision-making process. It also focuses on individual companies and does not acknowledge the role of product chain relationships in driving or constraining corporate responsiveness. PS is based on a life cycle perspective which requires companies to consider the needs of, and possibly collaborate with, other actors involved in production, distribution, consumption and disposal. As Labatt (1997) and Näsi *et al.* (1997) have suggested, CSR could usefully be combined with organisational theory to provide a richer theoretical framework.

Institutionalists have highlighted the importance of a systemic approach to the study of producer responsibility and behaviour for two reasons. First, because corporate social

issues are defined through the interaction of stakeholders at a socio-political level, and these can be analysed by looking in detail at the actors and the processes involved in policy development. For example, packaging policy in Europe has been analysed using policy network analysis as a conceptual tool. Second, corporate responsiveness has been linked to a wide range of external and internal factors, including stakeholder expectations, the distribution of costs and benefits along the product chain, the operation of financial markets, internal dynamics of power and leadership and the preferences of individual managers.

In conclusion, the neo-liberal literature was found to be of limited value for the thesis because it fails to explain either policy development or corporate behaviour. The managerial liberal literature is more applicable because it provides two conceptual tools for the analysis of PS within firms: the corporate social performance framework and stakeholder theory. However, it fails to consider the broader institutional and structural factors which influence corporate behaviour. There is therefore an opportunity to develop a new analytical framework for the evaluation of PS performance which builds on both managerial and institutional approaches to CSR.

Chapter 3

'Product stewardship' as an institution: a framework for analysis

Chapter 2 reviewed what is known about PS in general and packaging stewardship in particular, and placed PS within the broader context of debates about CSR, voluntary environmental agreements and DFE. It concluded that, while the CSP perspective and stakeholder theory provide a useful starting point for the evaluation of PS policy and practice, broader institutional drivers and barriers also need to be considered.

This chapter develops an analytical framework which will be used to answer the primary research question: *How, and to what extent, has product stewardship been institutionalised within the Australian packaging supply chain?* This framework focuses on the normative environment that shapes, and is shaped by, corporate behaviour. PS represents a new 'norm' or standard of behaviour in the packaging supply chain which is in the process of being institutionalised through public and corporate policy. It reflects the view of many ENGOs, consumers, government agencies and other social or political stakeholders, that companies should take more responsibility for the environmental impacts of packaging throughout its life cycle. However, corporate behaviour is also constrained by other institutions linked to the expectations of government regulators, customers, suppliers, shareholders, market analysts and financial institutions.

The analytical framework, which is summarised in Figure 6, has a number of elements. First, it is argued that the research question can only be adequately addressed by distinguishing between three levels of analysis—the macro (socio-political networks), the meso (companies within industry sectors) and the micro (inside companies). Second, it is argued that four themes need to be considered at each level of analysis:

- interest groups with an influence on the institutionalising process;

- packaging and PS discourses invoked by these groups to support their interests and policy beliefs;

- policies and policy processes that translate these discourses into 'techniques of control' (Hasselbladh and Kallinikos, 2000);

- company characteristics that mediate corporate responsiveness.

Figure 6: Summary of the analytical framework
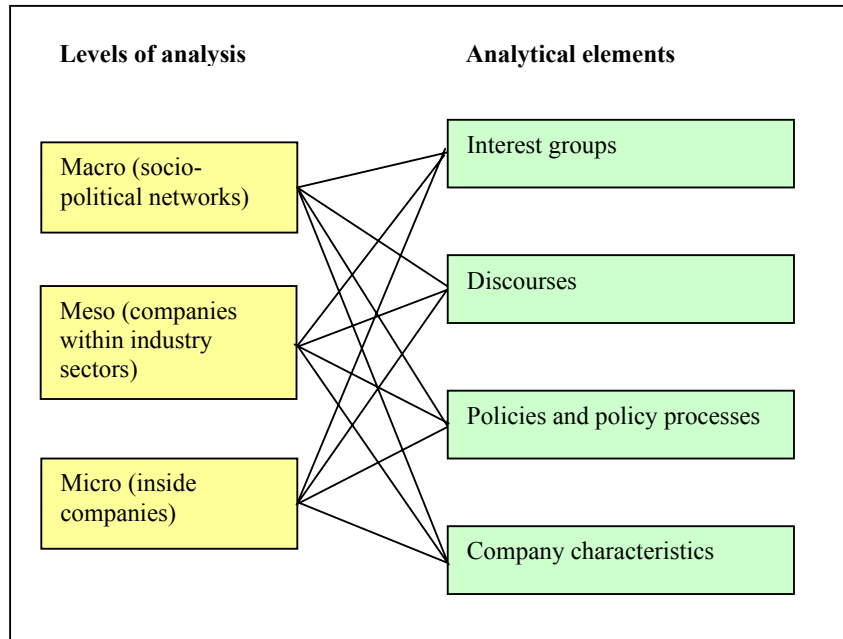
The next section provides a brief introduction to institutional theory and its application to the research. This is followed by a discussion about the role of interest groups, discourses, policies and policy processes, and company characteristics in institutionalising PS in the packaging supply chain.

An institutional approach to product stewardship

Institutionalism understands that individuals do not necessarily act rationally in ways that maximise personal or organisational benefits. Rather, it assumes that rules, norms and other frameworks influence behaviour because they are seen as the 'right thing to do' or because they become 'taken for granted'. Institutions are customs or rules that exist within local environments bounded by industries, professions or countries and these environments have a subtle influence: 'they penetrate the organisation, creating the lenses through which actors view the world' (DiMaggio and Powell, 1991a, p. 13). Institutions include shared meanings, which 'define social relationships, help define who occupies

what position in those relationships, and guide interaction by giving actors cognitive frames or sets of meaning to interpret the behaviour of others' (Fligstein, 2001, p. 108).

This is an appropriate approach to the study of PS, which represents a new (and contested) framework for the environmental management of packaging. PS is based on the principle that companies are responsible—to some extent—for the environmental impacts of packaging over its total life cycle. As will be shown in Chapter 4, PS is increasingly taken for granted as an appropriate basis for action within the packaging supply chain. However, corporate responsiveness to packaging issues is influenced by other institutions, such as food safety standards and market expectations of increased profit.

An institutional approach is implicit in much of the literature on CSR and environmental management. For example, while many writers talk about 'drivers' of socially responsible behaviour, Gunningham *et al.* (2003, p. 35) have recognised the complexity of ambiguous and interacting drivers:

> [I]n the course of our field research, we came to regard the concept of 'drivers' as somewhat impoverished. It implies the existence of independent, unidirectional, and unambiguous pressures, whether from regulation, communities, or markets, which impact upon corporations with sufficient force that they react to them. Yet we found that these external factors, rather than being independent, often gain their force through mutual interaction; that far from being unambiguous, the responses they demand are often unclear; and hence that they do not operate unidirectionally, for their thrust and content often are determined by the way regulated enterprises interpret, confront and counter them.

The authors of this study developed an integrative model based on the view that companies are simultaneously motivated and constrained by a multifaceted 'licence to operate'. They divided the external pressures that drive companies to improve their environmental performance into three broad categories—economic, legal and social—which classify the expectations of different stakeholders (Gunningham *et al.*, 2003, pp. 37–38):

- economic stakeholders include shareholders (including institutional investors), banks and customers;

- legal stakeholders include regulators, legislators and citizens (including ENGOs) who try to enforce regulations;

- social stakeholders include the local community, ENGOs and the general voting public.

Other writers have made a distinction between the economic, legal, ethical and discretionary responsibilities of companies (Carroll, 1979), or between pragmatic and social legitimacy (Puncheva, 2008). 'Pragmatic legitimacy' is based on the perception of stakeholders about the direct value of the firm's outputs to that constituency (Suchman, 1995). The search for pragmatic legitimacy may constrain how far companies can go in response to social demands for improved environmental performance. Within a capitalist economy, the focus of capital markets on short-term profit maximisation shapes business behaviour. Hawken (1993) has argued that companies face two contradictory drivers: the market driver to achieve the lowest price possible in order to survive, and increasingly urgent social demands to internalise the costs of environmental damage. Korten (1995, p. 214) regards CSR as a fundamentally flawed principle because a 'rogue financial system' is 'rendering responsible management ever more difficult' in the name of economic efficiency. From this perspective, the responsiveness of companies in the packaging supply chain to government and ENGO demands for increased PS (social legitimacy) is likely to be constrained by the expectations of economic stakeholders such as customers and shareholders (pragmatic legitimacy).

The analytical framework developed here draws on 'new institutionalism' in organisational theory[35]. This perspective 'emphasises the way in which action is structured and order made possible by shared systems of rules' (DiMaggio and Powell, 1991a, p. 11). Organisations are regarded as 'social entities, embedded in complex networks of beliefs, cultural systems and conventions that shape their goals and practices' (Hasselbladh and Kallinikos, 2000, p. 698). Institutions such as these play an important social role in helping to align individual and collective interests (Holm, 1995). Organisations adopt new structures, policies and procedures that comply with institutional standards in order to increase their legitimacy with stakeholders (Meyer and Rowan, 1992). While the managerial approach to CSR recognises the dynamic interaction between social issues,

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[35] Institutional theories have a long history, but there has been a renewal of interest and theoretical development in political science, sociology, economics and organisational theory since the 1970s under the title of 'new institutionalism'. Researchers have sought to understand how social institutions come into existence, remain stable and are transformed (Fligstein, 2001). The literature reviewed in this chapter is mainly from a sociological perspective.

corporate social responsibilities and corporate social responsiveness (e.g. Wood, 1991), writers within this field tend to focus on the role of public policy and stakeholders' expectations in defining expectations. Both of these are important in explaining corporate behaviour, but new institutionalism provides a more nuanced approach to the complex interactions between organisations and their social environment.

Within institutional theory an important distinction can be made between 'action guided by institutions' and actions taken to 'explicitly manipulate institutional parameters' (Holm, 1995, p. 400). Holm describes this as a 'nested systems' perspective, which involves action at two levels: the 'practical' and the 'political'. At the political level an institution is created or changed through the interaction of interests and ideas:

> On the one hand, ideas are formed by interests. Replacing one institution with another means that income, power and status will be redistributed. To succeed, an institutional entrepreneur must mobilise external and internal constituents behind his or her project. One instrument for doing that will be the construction of accounts that make sense of the proposed institutional project and discredit the alternatives. On the other hand, interests are formed by ideas ... New ideas can make actors see the situation and their place in it from a new angle. In this way, ideas constitute interests (Holm, 1995, p. 402).

This is a dynamic process which involves institutional change at both levels (Figure 7). Holm (1995, p. 399) argued that '[t]his perspective makes it possible to retain the insight that institutions are products of action and therefore constructed for some purpose, without giving up the notion that institutions are frameworks for action, and therefore taken for granted'. While this is an important analytical distinction, in practice the two levels are interconnected through feedback processes. A similar approach was also advocated by Clarkson (1995) when he argued that CSP had to be studied at two levels: the construction of a social issue by policy-makers; and the implementation of policies and programs within corporations in response to stakeholder expectations.

This research focuses on the institutionalisation of PS through corporate policy and practice in the packaging supply chain. However, it is recognised that institutionalising processes occur through the interaction of companies with a range of stakeholders. These include organisations directly involved in the economic supply chain—particularly suppliers and customers— as well as broader stakeholders such as government agencies, ENGOs, local communities and financial markets. Managerial attitudes and attributes of

power and leadership also influence the way the companies in similar environments interpret stakeholder expectations (e.g. Gunningham *et al.*, 2003; Prakash, 2000a).

Figure 7: The nested systems perspective on institutions
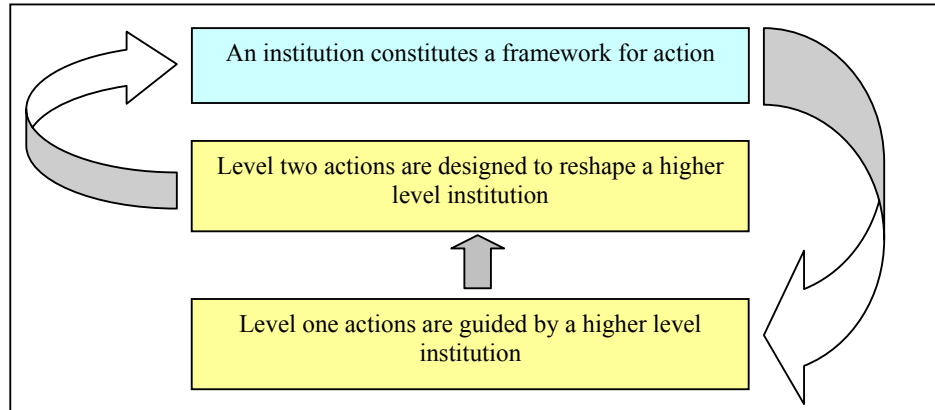
Source: Based on Holm (1995)

New institutional theory seeks to explain the homogeneity of organisational forms and practices within an 'organisational field', defined as organisations that 'constitute a recognised area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organisations that produce similar services or products' (DiMaggio and Powell, 1991b, pp. 64–65). According to Fligstein (2001, p. 108), fields are situations where 'organised groups of actors gather and frame their actions vis-à-vis one another'. Meyer and Scott (1992) refer to 'sectors' rather than fields, while economists are more likely to refer to 'industry sectors'. Fields or sectors of analysis have been defined by some writers to include organisations involved in direct exchange or competition, whereas others have examined political and social processes at a national or even international level (Meyer and Scott, 1992). 'Fields' or 'sectors' provide a useful framework for the analysis of homogenous behaviour within a certain domain of activity. They become 'institutionally defined' through processes of increasing interaction and collaboration, and the development of a mutual awareness that organisations have common interests (DiMaggio, 1983; cited in DiMaggio and Powell, 1991b, p. 65). After organisations have been structured into a field, they adopt strategies or practices that make them more like one another (DiMaggio and Powell, 1991b).

The field of study for this research is divided into three levels (Figure 8):

- the macro (socio-political) level, where PS is being institutionalised through the interaction of the state, industry associations and ENGOs in policy processes;

- the meso (industry sector) level, where PS is being institutionalised through changes to corporate policy and practice; and

- the micro (company) level, where competing interests and objectives for products within the firm are resolved by institutionalising PS in business control systems.

Figure 8: Three levels of analysis
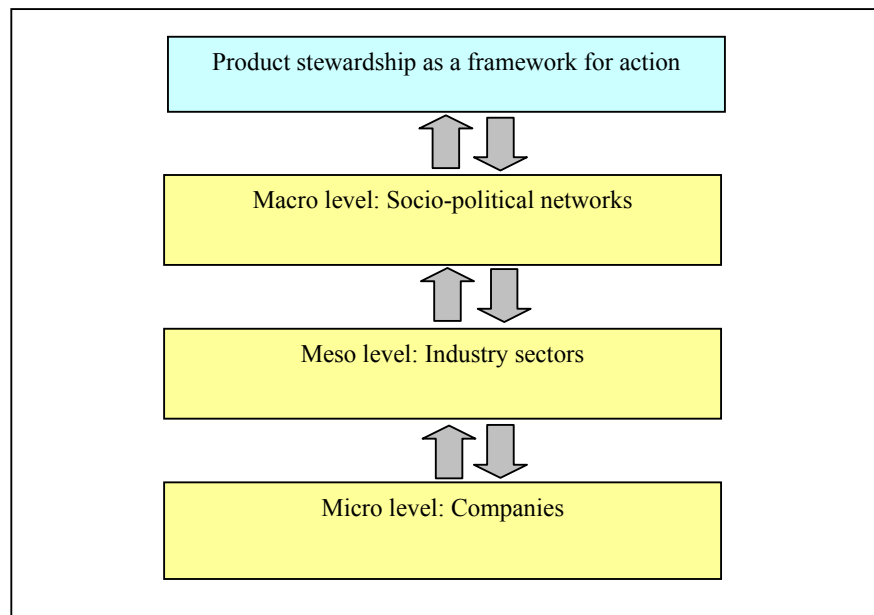
Industry sectors at the meso level have been identified on the basis of their role in the packaging supply chain. The 'packaging supply chain' is a useful construct in trying to understand packaging stewardship, because by definition it applies to all companies involved in the physical life cycle of packaging[36]. However, it is not reflected in industry

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[36] NPC Mark I allocated responsibility to all participants in the 'packaging chain'—'raw material suppliers, designers, packaging manufacturers, packaging users, retailers, consumers, all spheres of government, collection agencies' (ANZECC, 1999, p. 4). However, industry responsibilities under the NPC are discussed under the heading 'packaging supply chain'.

statistics, which have a different classification system[37]. As will be shown in Chapter 4, the packaging supply chain was defined through public policy and discursive processes for a political purpose—to identify all of the industry sectors with an influence on, and responsibility for, the environmental impacts of packaging. The industry sectors that have been specifically mentioned in the NPC include raw material suppliers, packaging manufacturers, packaging 'fillers' or 'brand owners'[38], and retailers. Brand owners can be further divided into more conventional economic categories, such as food and beverage manufacturers or electrical and electronic product suppliers. Each sector, and their role in the packaging supply chain, is described in more detail in Chapter 5.

The analytical framework

In this section it is proposed that the research question can best be answered by analysing four inter-related themes: interest groups involved in the construction of PS as a new institutional framework; discourses on the packaging problem and corporate responsibility that these groups invoke to support their interests and policy beliefs; policies and policy processes that help to embed the new institution in everyday practice; and company characteristics that mediate corporate responsiveness to institutional change.

Interest groups

While institutional approaches to the study of organisations have traditionally focused on explaining organisational similarities based on institutional conditions, there is a new emphasis on 'understanding the role of actors in effecting, transforming and maintaining institutions and fields' (Lawrence and Suddaby, 2006, p. 215). Institutional change is a

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[37] The Australian Bureau of Statistics (ABS) collects industry data using the Australian and New Zealand Standard Industrial Classification (ANZSIC). This allocates companies to a Division (the broadest level), Subdivision, Group and Class (the finest level). Packaging manufacturers and packaging users are located within the manufacturing division but in different subdivisions depending on the materials and processing methods that they use. For example, paper packaging manufacturers are located in Subdivision 23 – 'Wood and paper product manufacturing'. Plastic packaging manufacturers are located in Subdivision 25 – 'Petroleum, coal, chemical and associated product manufacturing' (ABS, 1993).

[38] The term 'brand owner' is used to refer to a company that sells a packaged product under their own brand, including most product manufacturers and retailers who sell 'own brand' products. The Australian NEPM for Used Packaging defines a brand owner as the Australian owner of the trade mark under which a product is sold, the first person to sell an imported product, or the supplier of packaging used in-store (e.g. for plastic bags) (NEPC, 1999).

political process because it often involves competing interests and a redistribution of income, power and status (Holm, 1995). Fligstein (2001) discussed the role that agency, or 'social skill', plays in institutionalising processes. By this he meant the ability of actors to cooperate in the promotion, stabilisation or transformation of an institutional arrangement. These institutional 'entrepreneurs' encourage cooperation by putting themselves into the position of others and by creating shared meanings. They need to work with two relevant groups: those within a group or organisation (insiders) and those in other organisations. 'The people who act as leaders in groups must stabilise their relations to their own group members to get them to act collectively and must frame their more general strategic moves towards other organisations in their field or domain' (Fligstein, 2001, p. 107). Institutional change often occurs in response to some sort of 'crisis', such as an economic or political upheaval. Initially dominant groups react by trying to defend the status quo, but if this doesn't work they look for ways to transform the field through strategic action (Fligstein, 2001). Lawrence and Suddaby (2006) have used the term 'institutional work' rather than social skill, although there is some overlap between the two concepts. Institutional work practices include: advocacy; the creation of 'normative networks' which provide a peer group for compliance, monitoring and evaluation; and education of actors to provide them with the skills and knowledge to support the new institution (Lawrence and Suddaby, 2006).

This thesis categorises actors as 'interest groups' because it focuses on the interests and policy beliefs of groups involved in the institutionalisation of PS. At a macro level, the evolution of PS can be studied by identifying groups that have helped to institutionalise PS through discursive and policy processes, including government agencies, industry associations and ENGOs. Sometimes a project, such as the creation of a new legal framework, will result in the creation of a new political actor. This actor then becomes part of the 'feedback processes' that influence policy outcomes (Holm, 1995, p. 409). The historical policy analysis in Chapter 4 identifies a number of new groups that were established to promote PS to government and industry stakeholders. At the second level of analysis—the packaging supply chain—the focus is on companies within industry sectors, and their industry associations. At a company level, the aim is to identify functional groups within the firm with an interest in packaging and a potential influence on PS policy and practice.

The role of specific interest groups in creating or maintaining an institution can be analysed by identifying the groups engaged in 'institutional work' practices and the relationships between them. 'Organisational maps', which are sometimes used to understand the role of different actors and interests in policy-making processes (Dalton *et al.*, 1996), will be used in this thesis to identify groups involved in the institutionalisation of PS at all three levels of analysis. A general map of interest groups is provided in Table 8, and more detailed maps are included within the relevant chapters.

Table 8: An organisational map of interest groups

Level of analysis	Type of interest group				
Macro (groups in socio-political networks)	Industry associations	ENGOs	State and federal government agencies	Local government associations	Trade unions
Meso (companies within sectors)	Industry associations	Companies – raw material suppliers, packaging manufacturers, brand owners and retailers			
Micro (functional groups within companies)	Management	Marketing	Operations	Product development/ procurement	Corporate affairs/ environment

At a macro level, where PS is being institutionalised through public discourses and policy processes, the main interest groups have been industry associations, ENGOs, trade unions and government agencies.

Industry associations tend to play an important role in mediating between government agencies and companies on a range of policy issues, and have been important institutional entrepreneurs in promoting PS in Australia. They can be an important 'mediating institution' in self-regulation because of their potential to establish a normative framework for their members (Gunningham and Rees, 1997, p. 372). Industry associations tend to have divergent views on environmental issues, as they do on many other policy issues. McEachern (1991) has identified three broad positions taken by the Australian business

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community on environmental issues, from 'rejectionists' through to 'environmentalists'[39]. However, he noted that peak industry associations, and many of the companies they represent, have developed a broad consensus position on environmental issues (McEachern, 1991, p. 116):

> For most businesses there is a loose, central proposition concerning the need to maintain sustainable economic development, to allow business to live and prosper in the midst of rising environmental concern. Enough must be done for the environment to contain criticism but not to limit the scope for economic development.

Non-government organisations (NGOs) have also played an important role in packaging policy at different times. The emergence of the environmental movement in the 1960s in many developed countries was associated with the establishment of a number of influential ENGOs[40]. Their increasing electoral support has allowed them to influence political parties through the power of 'green' votes (McEachern, 1991; Walker, 1992). Trade unions have also been actively involved in some environmental policy debates in Australia. On most occasions, particularly where employment is at risk, they have tended to side with growth and development rather than environmental interests (Walker, 1992).

Within Australia there are three tiers of government with an interest in PS and packaging: federal, state and local. The most important of these is state government[41], which has responsibility under the Australian Constitution for environmental protection and natural resource management. This includes overall responsibility for waste management policy, although local government has responsibility for the collection and disposal of household

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[39] According to McEachern (1991), 'rejectionists' do not acknowledge that economic activities cause environmental harm. 'Accommodationists' try to accommodate environmental concerns, for example by introducing environmentally improved products or by defending the environmental credentials of their products; and 'environmentalists' work to introduce products or services that help the environment.

[40] The first wave of environmentalism saw a number of environmental non-government organisations established in Australia, including the Australian Conservation Foundation (ACF) in 1966, the Total Environment Centre (TEC) in 1972, Friends of the Earth (FOE) Australia in 1974 and Greenpeace Australia in 1977.

[41] There are six states in Australia (New South Wales, Victoria, Queensland, Western Australia, South Australia and Tasmania) and two territories (the Australian Capital Territory and the Northern Territory). The powers of the states are protected in the Australian constitution, whereas territories are subject to greater federal government control.

waste[42]. The role of local government in waste management has expanded over the past few decades to include the collection and recovery of household packaging and paper. The environmental responsibilities of the federal government, which were clarified in the *Intergovernmental Agreement on the Environment 1992*, include 'facilitating the co-operative development of national environmental standards and guidelines' (cited in Productivity Commission, 2006, p. 46). Environment ministers meet regularly to discuss national issues and regulatory approaches through the Environment Protection and Heritage Council (EPHC). At federal and state government levels there are also various agencies engaged in policy development and implementation. For example, while the federal government's involvement in national waste management policy is currently managed by the Department of Environment, Water, Heritage and the Arts, the Productivity Commission conducted a broad-ranging inquiry into waste management in 2006.

This federal system limits the ability of the state to take a strong coordinated approach to policy development (Bell, 1992, p. 110): 'The fragmentation in government further limits the degree of state autonomy from important economic interests and undermines the state's capacity to implement state-inspired policy initiatives'. The existence of different environmental legislation in each state requires extensive intergovernmental coordination and cooperation (OECD, 2007). As will be shown in Chapter 4, the federal system has provided a challenge for government agencies and other interest groups trying to influence packaging policy at a national level.

The interaction of government agencies, ENGOs and industry associations in the construction of PS discourses can be analysed by identifying the 'policy beliefs' that shape institutional work practices. The concept of policy beliefs is fundamental to the 'advocacy coalition' approach to policy analysis (Sabatier, 1991), which is used in Chapter 4 to investigate PS from an historical perspective. According to Sabatier, advocacy coalitions in policy processes are organised around 'core beliefs' that they hold in common. These core beliefs may include (Sabatier and Jenkins-Smith, 1993, p. 221):

- the identification of groups or entities whose welfare is of greatest concern;

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[42] Local government powers are established within the relevant legislation of each state government.

- the proper distribution of authority between government and the market;

- the overall seriousness of the problem;

- the priority given to various policy instruments, such as regulation or education.

Sabatier has argued that core beliefs remain fairly stable for decades and this helps to explain the relative stability of policy coalitions. However, while the core beliefs of 'purposive groups' such as ENGOs will change very little over time, 'material groups' such as businesses and trade organisations may be more likely to change their position on some core policy beliefs if this is necessary to protect their material self-interest (Sabatier and Jenkins-Smith, 1993). Actors within an advocacy coalition tend to exhibit substantial consensus on core policy issues but may have less agreement on 'secondary aspects'. These change over time in response to experience and policy-oriented learning, and include issues such as:

- the perceived seriousness of specific aspects of the problem in specific locations;

- administrative rules such as budgetary allocations and statutory interpretation;

- information on the performance of specific programs or institutions (Sabatier and Jenkins-Smith, 1993, p. 221).

Jenkins-Smith and Sabatier (1993) have proposed that the most appropriate method for identifying beliefs is discourse analysis, i.e. examining the language and ideas in public hearings, other government documents and interest group publications. Documents will be reviewed in Chapter 4 to identify some of the 'core' and 'secondary' policy beliefs of interest groups in socio-political networks, which have helped to construct PS as the normative framework for packaging policy and corporate strategy in Australia (Table 9).

Table 9: Policy beliefs relevant to PS and packaging

Type of belief	Characteristics	Generic examples	Examples in packaging policy discourse
Core policy beliefs	Stable over time—linked to personal values and philosophy	Social control of business	Extent to which packaging should be regulated by the state
		Interests that should be given priority	Industry, local communities or the natural environment
		Corporate responsibility	The responsibility of manufacturers for packaging waste
Secondary aspects	Change over time in response to experience and policy-oriented learning	The policy issue	Nature and seriousness of the 'packaging problem'
		Policy goals	Waste, litter or 'life cycle management'
		Preferred policies	CDL, EPR or voluntary agreements

Source: Based on the advocacy coalition framework (Sabatier, 1991; 1993)

There are also interest groups with varying levels of power and influence within the packaging supply chain (meso level), including companies in distinct industry sectors and the associations that represent them. Companies can be classified according to their primary economic activity, for example the manufacture of packaging, the 'filling' of packaging with food or beverages, or retail sale of packaged products. These constitute organisational fields with defined networks, interests, codes of conduct and legislative requirements. Within the context of the current research, each of these sectors is also part of a larger organisational field defined by the NPC, which is referred to here as the 'packaging supply chain'.

PS focuses on the product life cycle and by its very nature requires action by many different actors with different commercial interests. Boons (2002) established a conceptual framework for the analysis of 'product chain management' strategies, which in his view helps to explain why certain actions are taken or not taken, based on costs and benefits to each player[43]. He used this framework to analyse different options for product chain management, such as material reduction, material substitution, material recycling, product substitution and product recycling, and argued that it helps to explain, for example, why

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[43] Boons's framework (2002) was based on two assumptions about corporate behaviour: resource dependency (companies act to reduce their dependence on other organisations) and utility maximisation (companies choose actions which bring about the desired outcome at minimum cost).

material reduction is relatively common, but product recycling is not. A producer can undertake material reduction alone, and while there may be development costs it also results in lower raw material costs. Product recycling, on the other hand, requires greater coordination costs and may result in lower sales (Boons, 2002).

According to this view, the PS strategies of firms can be explained, at least in part, by looking at the costs and benefits of implementation. These in turn are linked to a company's position in the supply chain (Boons, 2002, p. 503, emphasis in original):

> Thus it is possible to explain why reusable packaging is not introduced to substitute disposable packaging of food products. With the increasing power of retail organisations in [the] product chain of a large number of food products, these actors are in a position to determine the choice made by actors in the supply chain. Based on the relative costs and benefits of different types of product chain management *for themselves*, they choose to coordinate the elimination of a product rather than the establishment of a recycling scheme.

A similar approach was taken by Verghese and Lewis (2007), who highlighted the fact that organisations at different points in the packaging supply chain do not necessarily have the same financial incentives to reduce packaging waste.

At a micro level, the responsiveness of companies to institutional pressure can also be explained by looking at interest groups *within* the firm and their relations with external stakeholders. Stakeholder theory tends to assume that organisations act in a consistent and rational way in response to stakeholder expectations. However, companies should be conceptualised not as unified and rational actors, but rather as 'loci of multivalent powers ... contested terrains rather than total institutions' (Clegg, 1989, p. 200). Mintzberg (1983) distinguished between internal and external 'influencers' who make up the 'cast of players' in and around a firm who use their power to control decisions and actions. If external influencers have different goals they may try to 'pull the organisation in different directions, forcing it to pursue conflicting goals' (p. 103). Despite being in a hierarchical structure, many units within an organisation work directly with external influencers and come to represent their interests internally. According to Mintzberg, this helps to politicise internal groups, who rely on their power within the organisation to achieve control. Power is based on expertise and whether or not a particular function is considered critical to the organisation. For example, manufacturing operations are normally considered to be more critical than public relations or accounting (Mintzberg, 1983). It is important therefore to

understand the internal dynamics of power and leadership within each company (Prakash, 2000a).

Functional groups within a company interpret institutional pressure in different ways according to their functional routines and 'cultural frame' and often speak different languages. For example, environmental managers might talk about ecological metrics such as life cycle assessment while business managers are interested in costs and the financial return on investment (Hoffman, 2001). Clegg (1990, p. 104) refers to diverse 'modes of rationality' linked to occupational identities and the broader institutional environment. Jones (1999) hypothesised that functional groups in the 'hard' technical core of a company, for example in production or in research and development, will be less concerned with social responsibility than those in 'soft' boundary-spanning functions such as public relations and marketing. These differences often act as barriers to environmental responsiveness: 'Beyond structural limitations to free flows of information, the language, rhetoric, objectives and external constituency of the various departments limit the identification of important environmental actions (Hoffman, 2001, p. 147). Policy coordination through cross-functional management will improve a firm's ability to develop and implement PS solutions (de Bakker *et al.*, 2002; Hart, 1995).

The responsiveness of functional groups within a company to PS is likely to be influenced by not only the expectations of powerful supply chain partners and perceptions of organisational costs and benefits, but also other external stakeholders such as government agencies, ENGOs, industry associations, consumers and the media. Some writers on stakeholder theory have attempted to categorise stakeholders according to their salience to the firm. For example, it has been suggested that companies are likely to give priority to stakeholders that provide critical resources and are therefore important to the survival of the company (Hill and Jones, 1992). Clarkson (1995) distinguished between 'primary stakeholders'—those who are involved in transactions with the corporation including employees, shareholders and customers—and 'secondary stakeholders'—those who can influence, or are influenced by, a corporation but are not engaged in transactions with it. Mitchell *et al.* (1997) argued that the attention paid by a corporate manager to the demands of a stakeholder group will depend on how that manager perceives the legitimacy and power of the group as well as the urgency of their claim. Stakeholder salience will be low if only one attribute is present, moderate if two attributes are present,

and high if all three are present. The authors have suggested that the most legitimate, powerful and urgent corporate stakeholders are those who are critical to the commercial success of the organisation, including suppliers and customers (Mitchell *et al.*, 1997).

According to Fineman and Clark (1996), stakeholder salience on environmental issues varies between industry sectors, based on factors such as an industry's history of public scrutiny and regulation. Their multi-sectoral study in the UK concluded that government regulators and campaigners (ENGOs) are regarded by companies as the most important environmental stakeholders, while others are either marginalised or rejected (Fineman and Clarke, 1996). The influence of non-human actors on policy also needs to be recognised (Bulkeley *et al.*, 2005), for example packaging technology and the infrastructure for waste management and recycling. Stakeholder theory will be applied in Chapter 6 by linking PS responsiveness to the perceived legitimacy and power of corporate stakeholders.

Discourses

Discourse analysis is useful for the study of institutional work because 'it helps to illuminate the processes through which actors are able to fashion, communicate and embed stories that support the creating, maintaining or disrupting of institutions' (Lawrence and Suddaby, 2006, p. 241). These 'stories' provide a rationale or social account of an institution's existence and purpose (Jepperson, 1991). Hasselbladh and Kallinikos (2000, p. 707) argued that '[a] deeper appreciation of rationalisation and institutionalisation in organisational settings must include a comprehensive analysis of discourse'.

A discourse is a 'shared way of apprehending the world', which is embedded in language (Dryzek, 1997, p. 8). While the origins of discourse analysis lie in Michel Foucault's work on the role of power, discourse and knowledge in shaping social issues such as sexuality, punishment and insanity (Mills, 2003), it has been used more broadly in policy studies. Contrary to the view of empiricists, policy problems are not simply 'out there' waiting to be discovered (Bessant *et al.*, 2006). Rather, they are constructed through discursive processes involving competing interests and values:

> Establishing how language is used in policy-making is helpful because it serves to remind us how naming, labelling and ascribing particular meanings or identities are deeply political acts ... thinking about the

> role of talk (especially metaphors) can heighten awareness that
> knowledge of the social world is constituted and shaped through talk
> about 'it' (Bessant *et al.*, 2006, p. 305).

According to Hajer (1995b), any environmental conflict involves a continuous struggle over the definition and meaning of the environmental problem. Policy change is strongly linked to discursive struggle between competing groups: 'If a discourse is successful— that is to say, if many people use it to conceptualize the world—it will solidify into an institution' (Hajer, 1993, p. 46). Dryzek (1997, p. 9) has argued that 'language matters ... the way we construct, interpret, discuss, and analyse environmental problems has all kinds of consequences'. In his view, environmental problems are complex and there are usually many plausible perspectives on their cause and possible solution. Environmental politics can therefore be understood by examining the discourses used by actors as well as their interests and power.

Recent environmental policy debates in many developed countries, including Australia, have been strongly influenced by discourses of 'ecological modernisation' (Christoff, 2002; Hajer, 1995b; Dryzek, 1997) or 'new corporate environmentalism' (Jermier *et al.*, 2006). This is the concept that the economy can be restructured to respond to the problems of environmental degradation but without any fundamental changes to the socio-economic system. Industry will cooperate with governments in this process because environmental improvement is good for business. For example, companies can save money by reducing pollution and waste. However, Christoff (2002) distinguished between 'weak' and 'strong' interpretations of ecological modernisation. In his view, weak ecological modernisation has a narrow focus on technological improvement within the existing institutional framework, while strong ecological modernisation involves broader changes to systems of production and consumption, civil society and government institutions. Critics of weak conceptions of ecological modernisation argue that powerful business interests have hijacked debates about environmentalism and sustainable development to ensure minimal change from 'business as usual' and they call for a more open and critical debate about environmental policy (Springett, 2003; Welford, 1997).

'Narrative strategies' (Lawrence and Suddaby, 2006), 'frames' (Derry and Waiker, 2008) or 'story-lines' (Hajer, 1995b) have been invoked by actors in the discursive struggle to define the packaging problem and corporate responsibility for packaging in Australia.

Framing is 'a process of generating shared meaning and purpose through the creation of overarching messages' (Derry and Waiker, 2008, p. 102). Its purpose is to 'enhance legitimating of the group in the eyes of normative stakeholders (i.e., by influencing the normative stakeholders to adopt the activist group's frame as its own)' (pp. 106–7). It is therefore critical to institutionalising processes. Framing often involves the use of metaphors (Bessant *et al.*, 2006). For example, in PS debates inanimate objects such as products and packaging are often referred to as having a 'life cycle' that needs to be managed.

Corporate environmental practice is translated through the frames used by different groups. For example, insurance companies promote environmental management through the frame of 'risk management' while buyers might talk about 'operational efficiency' (Hoffman, 2001, pp. 142-6). King (2008) has argued that stakeholders are more likely to influence a corporation if they frame their demands in the 'dominant logic' of efficiency. Hajer (1995b, p. 62) has used the term 'story-lines' to refer to a similar process, defining them as 'narratives on social reality' which 'provide actors with a set of symbolic references that suggest a common understanding'. Story-lines tend to be simple narratives that conceal the complexity of the social, political or scientific discourses on which they draw (Hajer, 1993).

The discursive struggle to define the packaging problem and corporate responsibility in Australia has helped to institutionalise PS in public and corporate policy, a process which is explored in Chapter 4. At a socio-political level, discourses are critical in public policy debates because they direct attention to some aspects of a situation at the expense of others and represent a situation in such a way that it becomes taken for granted (van Herzele, 2006). There is an extensive record of contributions to packaging policy debates in Australia by interest groups including industry associations, ENGOs and local government associations, and the resulting discourses provide important insights into the struggle over ideas about waste, litter and corporate responsibility. A preliminary stakeholder survey undertaken for this thesis (Lewis, 2005) highlighted some important areas of difference in the way that interest groups speak about the environmental impacts of packaging. For example, while government and ENGO respondents tended to focus on impacts at end-of-life, such as waste and litter, industry respondents were more likely to mention the need for a 'life cycle' approach.

The discursive *strategies* used by interest groups in policy debates are also important. According to Eden (1999), industry associations invoke discourses based on 'technological rationalism' to claim legitimacy and to marginalise others, for example they promote scientific knowledge, expertise and 'real world' experience as the only valid forms of understanding. While ENGOs are sometimes regarded as an important moral influence, business interests seek to exclude them from policy processes because they are seen as 'uninformed' and 'irrational' (Eden, 1999).

The language used by companies and associations in different industry sectors to describe their commitment to PS is explored in Chapter 5. Individual companies draw on environmental narratives as they try to construct a socially responsible identity in public statements, and often do so in a way which implies that corporate greening is uncontroversial and what the organisation has always been about (Coupland, 2003). This is consistent with institutional theory, which suggests that organisations adopt accepted vocabulary to describe structures or policies in order to conform to institutional environments and maintain organisational legitimacy (Meyer and Rowan, 1992, p. 31).

Discursive strategies are also used by actors *within* firms to institutionalise new corporate responsibilities, such as PS, in everyday practice. The framing of PS in business terms is discussed in Chapter 6. PS can be expected to become more institutionalised the more it is integrated within everyday business language, for example by linking it to business efficiency or competitive advantage.

Policies and policy processes

Jepperson (1991) noted that something becomes more highly institutionalised when it is embedded in other frameworks and has become taken for granted, either because people are unaware of it and therefore do not question it, or because there are no alternative institutions or principles. One mechanism for this is the integration of a new idea or standard of behaviour in governance systems. An analytical distinction can be made between the role of discourses and 'techniques of control' in the institutionalising process (Hasselbladh and Kallinikos, 2000, p. 704):

> Institutions are conceived as consisting of basic ideals that are
> developed into distinctive ways of defining and acting upon reality

(i.e. discourses), supported by elaborate systems of measurement and documentation for controlling action outcomes.

Techniques of control include 'the specification of the tasks, items and social roles involved and the delineation of their relationships' and 'the development of action models and systems of measurement and evaluation' (Hasselbladh and Kallinikos, 2000, p. 707). A broader term—'policy'—is used in this research to refer to techniques of control at macro (socio-economic), meso (industry) and micro (company) levels. The focus is on PS policies, the interactive processes involved in policy development, and the way that these policies are put into practice within companies.

The institutionalisation of PS within the packaging supply chain can be understood by investigating the policies and policy processes of individual companies. However, institutional theory suggests that these are shaped by rules and cultural norms which are established outside individual organisations, including regulations, voluntary agreements and codes of conduct. Public policy processes have helped to institutionalise PS by embedding it within voluntary agreements between state agencies and industry groups. Companies interpret public policy requirements when formulating corporate policy, within the context of their other institutional drivers and barriers. Industry associations play a mediating role, both in influencing public policy and guiding the response of member companies (Gunningham and Rees, 1997; McEachern, 1991; Pulver, 2002; Streeck, 1983). It is therefore important to explore relationships between policies and policy processes at socio-political, industry and company levels (Figure 9).

Figure 9: Interactions between policies and policy processes at different levels
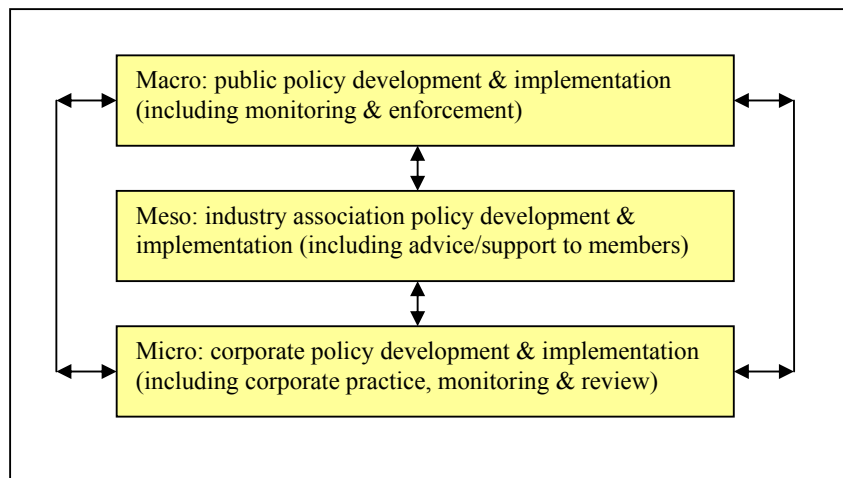
Public policy and policy processes

The analysis of public policy in this research takes an historical perspective. This is important in trying to understand how packaging became a social problem in the first place, how different groups have responded to it, and how these responses have helped to institutionalise PS within public and corporate policy. PS as we know it today is inextricably linked to the past, because 'once certain institutional and legal patterns are laid down, they tend to influence all subsequent policy developments' (Bessant *et al.*, 2006, p. 82).

Two aspects of public policy are examined:

- the processes involved in negotiating PS policy, particularly the NPC;

- the effectiveness of PS in driving change within companies.

In terms of process, the research focuses on the role of policy coalitions in shaping definitions of the 'packaging problem' in Australia and appropriate policy responses. This needs to be recognised as a dynamic process involving conflict between groups. Social problems are defined and redefined over time, and often evolve from an 'unrecognised problem' (one which is perceived as a problem only by a small group) to a 'current problem' (one which is widely recognised and receiving societal attention) (Smigel, 1971)[44]. In an attempt to provide a more precise definition that could be used for empirical testing, Tallman and McGee (1971) have suggested that a social problem is a situation which is perceived by a relatively large group of people as a source of dissatisfaction; members of this group are motivated to effect change; and there are certain alternatives that are regarded by the group as viable solutions.

The policy process could be characterised as 'pressure group pluralism', in which governments respond to the demands of interest groups such as NGOs, trade unions and business groups (Bell, 1992; Streeck, 1983). This is the view of business 'as just one force among many' (McEachern, 1991, p. 11). Pressure group pluralism provides some explanation for environmental policy development in Australia (Walker, 1992) but is

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[44] Other categories identified by Smigel (1971, pp. xii–xiii) are a 'recurrent problem' (one which is 'long standing, persistent, visible and chronic') a 'refashioned problem' (a recurrent problem which has been redefined) and a 'derecognised problem' (a problem which has been dormant but has gained new public awareness).

inadequate as a framework for the analysis of voluntary agreements, such as the NPC, which involve a close and mutually dependent relationship between the state and particular interest groups. These processes can best be described as 'corporatism', which emphasises collaboration between business interests and the state in policy development, while also recognising the role of trade unions (McEachern, 1991). They are typical of new forms of governance which involve self-organising, inter-organisational networks rather than traditional bureaucratic or market-based mechanisms. These networks often involve a significant degree of autonomy from the state, and interactions between network members based on trust and negotiated 'rules of the game' (Rhodes, 1996). The focus needs to be on 'modes of governing' rather than formal government processes because this recognises that 'the ways in which problems are defined and policy made is constructed through discourses, networks and coalitions which traverse traditional boundaries of state and society' (Bulkeley *et al.*, 2005, p. 17).

Policy network analysis is used in Chapter 4 to explore institutionalising processes at a macro level, because it focuses on interactions between government representatives and interest groups during policy-making processes (Nunan, 1999)[45]. It highlights the fact that groups have unequal access to government policy-making processes and that relationships are more institutionalised than classical pluralism would imply (Bell, 1992). Importantly, it acknowledges that interest groups are not completely independent from the state because they can become involved in both policy development *and* implementation. Policy network analysis provides a useful conceptual tool for the analysis of packaging policy processes in Australia that have helped to shift stakeholders' perceptions of the 'packaging problem' and expectations about corporate responsibility.

The state plays an important role in controlling access to the policy-making process, for example through 'the ways in which the state defines social interest, sponsors interest group formation, recognises and licenses selected groups to speak on behalf of particular interests, and incorporates functional groups into the formal structures of policy-making' (Matthews, 1988, p. 148). Governments act as power brokers between competing interests

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[45] Policy network analysis has become the 'dominant paradigm' for policy analysis in the UK and has been used extensively elsewhere (Dowding, 1995). For example, it provided the framework for an analysis of packaging policy in the UK (Nunan, 1999) and business social responsibility programs in the UK and Australia (Moon, 2002).

and can actively block the access of certain groups to policy processes (Bell, 1992). According to Matthews (1988, p. 160), access to policy networks by interest groups depends on how dispensable the group is to policy implementation or success:

> This partly is a matter of the group's structural position in the economy; that is, whether they are producers or providers of essential goods and services. It is also a question of the group's organisational capacity: is it the single or most authoritative voice in its field; is it able to bind and control its membership; and are its leaders able (and willing) to cooperate with the state (and other interest) as integral participants in the process?

Atkinson and Coleman (1989) distinguish between different types of policy networks based on the extent to which state authority is concentrated, the extent to which it is independent of sectional interests, and the level of mobilisation of business interests. Weak-state countries like Australia are unlikely to have state-directed networks and more likely to develop policy through pressure pluralism or corporatism (Atkinson and Coleman, 1989). Atkinson and Coleman define corporatism as a policy network which involves a low level of concentration in state decision-making, a state which is relatively autonomous from sectional interests, and a high mobilisation of business interests. The same conditions, but with low mobilisation of business interests, result in pressure pluralism. 'Industry dominant pressure pluralism' occurs when the state is more closely linked to sectional interests and business interests are highly organised. This is the political process that Bell (1992) considers the most relevant to Australia.

Policy change can also be explained through the identification of coalitions with different values and policy beliefs. According to Sabatier (1991), policy change occurs through the interaction of competing advocacy coalitions within a policy community or sub-system (related to the institutional concept of a 'field' or 'sector'). These coalitions consist of 'actors from many public and private organisations at all levels of government who share a set of basic beliefs ... and who seek to manipulate the rule of various governmental institutions to achieve these goals over time' (pp. 152–3). Conflict between coalitions is mediated by independent 'policy brokers' who are actors with an interest in system stability rather than particular policy goals, for example elected officials or senior public servants. However, senior public servants can often act as policy advocates, particularly when their organisation has a clearly defined objective (Sabatier, 1993). In this respect the advocacy coalition framework differs from traditional pluralist theory. Coalitions not only

include interest groups; their members also include legislators, agency officials, researchers and the media (Sabatier, 1993). While there is often compromise among coalitions, there is normally one dominant coalition and one or more minority coalitions.

The value of the advocacy coalition approach is that it broadens the scope of policy analysis to include a much larger group of actors, and it focuses on policy debate and argumentation (Fischer, 2003). However, it has been criticised for its inability to explain why and how policy change occurs (Hajer, 1995b; cited in Fischer, 2003). In Hajer's view, policy coalitions are held together by narrative story-lines rather than preconceived policy beliefs:

> What unites these coalitions and what gives them their political power is the fact that actors group around specific story-lines that they employ while engaging in environmental politics. It can be shown that although these actors share a specific set of story-lines, they might nevertheless interpret the meaning of these story-lines rather differently and might each have their own particular interests (Hajer, 1995b, p. 13).

A 'discourse coalition' becomes dominant if central actors accept the new discourse, and if policy processes are conducted according to the ideas embodied within it ('discourse institutionalisation') (Hajer, 1993). In his review of Hajer's approach, Fischer (2003, p. 102) has noted that this does not mean that there are no belief systems:

> Rather, it is to argue that it is not the knowledge in the belief systems per se that holds the members of such coalitions together, but the 'storylines' that symbolically condense the facts and values basic to a belief system. To be sure, many professional experts in a policy coalition are interested in the validity of core cognitive factors, particularly those in the professional 'policy networks' relevant to the issue area. But the broad majority of the members of a politically oriented policy coalition respond to simplified storylines that symbolically reflect the concerns of core beliefs, rather than the beliefs themselves.

Another important contribution by Hajer is his observation that policy coalitions are much broader and more flexible than Sabatier's concept of an advocacy coalition. Some members of a discourse coalition may never meet, and their political activities may not be coordinated in any way, but they share common story-lines that 'supply people with new ideas about their potential role and possibilities for change' (Fischer, 2003, p. 106). Policy learning does not necessarily occur through the emergence of new 'facts', informed debate and information exchange (as Sabatier asserted). Fischer (2003, p. 111) has argued that the

views of a coalition member will not change if they do not regard the empirical evidence as credible, or if the data will 'take him or her in the wrong direction, or at least down a road he or she is unwilling to travel'. Both Hajer and Fischer suggest that policy analysis needs to focus on the way that different coalitions struggle to define the policy problem and solutions, and this requires detailed, case-specific examples of the way that policy is made (Fischer, 2003).

In this thesis, the institutionalisation of PS at a macro level is studied by analysing the influence of shifting policy coalitions on the institutionalisation of PS within Australian packaging policy. These coalitions are linked to the shared policy beliefs and story-lines which have been used to define the packaging problem and corporate responsibility.

The role of industry associations in public policy

Industry associations have played an important role in institutionalising PS through public and corporate policy in the packaging field. According to Eden (1999), academic research on environmental policy has tended to neglect the role of industry associations. These groups are playing an increasingly important role in the development and implementation of policy, which often goes well beyond lobbying state agencies on behalf of their members. Business interests—both corporations and industry associations—tend to influence policy processes because of their relative power (Walker, 1992, p. 249):

> [G]overnment reliance on private investment as the means to
> implement development grants an important veto power to business.
> Business can and frequently does threaten to withdraw investment ...
> Yet the success of the withdrawal threat is dependent both on the
> relative power of the business and on circumstances.

The role of associations has been described as 'sub-political' because they are powerful but, unlike governments, are not accountable to the electorate (Eden, 1999). State agencies tend to rely on industry associations for information and technical advice on policy proposals (Streeck, 1983). For example, government departments in Germany actively discourage individual firms from contacting them on issues being dealt with by their association. The benefit for the state is that interest groups are encouraged to 'speak with one voice' so that they don't have to negotiate with many divergent and often conflicting interests (Streeck, 1983, p. 270). During policy negotiations, associations negotiate consensus among member companies, which allows the business community to present a

united position (Pulver, 2002). According to Pulver, industry associations provide a benefit to their members by allowing them to participate in the policy process without appearing to be political agents. Industry associations can also influence the social responsiveness of companies through the stance they take on particular social issues. For example, a powerful industry association that wants to maintain a common industry position against a new environmental standard will try to impose this view on companies that want take a different position, effectively bringing all members down to the 'lowest common denominator' (Harrison, 1999, p. 133).

Associations may fend off threats of state regulation by offering some form of self-regulation (Streeck, 1983). Voluntary codes of conduct and environmental agreements, often negotiated by state agencies and industry associations, are increasingly being used in Australia, New Zealand, Europe and North America as an environmental policy tool ((Börkey and Lévêque, 2000; Croci, 2005; ten Brink, 2002). Very few negotiated agreements are truly 'voluntary' because they are often signed by industry 'under duress' as an alternative to regulation (Bailey and Rupp, 2006, p. 42). A number of reasons have been put forward for their popularity. European countries have adopted voluntary approaches because of the growing complexity and administrative cost of traditional regulatory instruments and the need to promote 'clean technologies' rather than end-of-pipe technologies (Börkey and Lévêque, 2000). They have been commonly used to deal with waste management because of technological uncertainty at the time when waste issues were first addressed, and the need for industry involvement to set realistic objectives (Börkey and Lévêque, 2000).

From a state perspective, self-regulation has also been promoted because of 'regulatory overload' within environmental agencies, the increasing prominence of a neo-liberal ideology within government which favours deregulation, and the opposition of multinational enterprises to regulation (Gunningham and Rees, 1997). Business regulators in Australia tend to take a 'gentle' approach to regulatory enforcement, preferring to use education and persuasion as their primary form of regulation (Grabosky and Braithwaite, 1986)[46]. However, education and persuasion are only effective if accompanied by a

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[46] However, Grabosky and Braithwaite (1986) found a diversity of approaches within environmental agencies. The Victorian EPA and the State Pollution Control Commission in NSW

credible threat of regulation if companies do not comply voluntarily. Ayres and Braithwaite (1992) have promoted the concept of 'responsive regulation' based on a pyramid of enforcement strategies. According to this approach, the state should promote industry self-regulation wherever possible because it is the least costly to both taxpayers and industry. Goals need to be clearly communicated and companies should be given discretion on how best to achieve it at least cost. Because companies will be tempted to exploit self-regulation by producing less than optimal outcomes, the state needs to communicate its willingness to move up the enforcement pyramid if necessary: first to enforced self-regulation, then to command regulation with discretionary punishment, and finally to command regulation with non-discretionary punishment (Ayres and Braithwaite, 1992). A credible threat of regulatory enforcement is required to 'persuade the reluctant, the recalcitrant and the incompetent that other, less coercive, approaches are worth adopting' (Gunningham and Sinclair, 2002, p. 39).

Voluntary agreements have been introduced in Australia by federal and state governments to promote diverse environmental objectives, including waste reduction, cleaner production and greenhouse gas reduction (Burritt, 2002; Gunningham and Sinclair, 2002; Osmond, 2002; Sullivan, 2005). Unlike most agreements, which are based entirely on self-regulation, the NPC is supported by back-up legislation to ensure that companies participate. From an industry perspective, voluntary agreements tend to be preferred over state regulation because they allow for greater flexibility in the way that companies can work to achieve targets, and because they can be more responsive to specific conditions within an industry or a firm than conventional 'command and control' regulations (Stewart, 2001). However, they have been criticised by NGOs for their perceived lack of credibility and transparency (Sullivan, 2005). Voluntary agreements are open to a perception of 'regulatory capture' because industry groups play a central role in the policy process and may negotiate targets which are sub-optimal from a social perspective (Börkey and Lévêque, 2000). Sommer (2006) has argued that the NPC involves regulatory capture because for the duration of NPC Mark I its governing body, the NPCC, included

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(now absorbed within the Department of Environment and Climate Change) were found to be the most adversarial, while other jurisdictions relied much more heavily on education or persuasion.

industry and government representation but no third parties[47]. In her view this made effective monitoring and enforcement impossible. However, one of the advantages of excluding third parties from the development and monitoring of voluntary agreements is the likelihood that this will speed up the regulatory process (Gunningham and Sinclair, 2002).

Gunningham and Rees (1997) argued that it is difficult to make generalisations about the effectiveness of self-regulation because it can take many different forms, ranging from industry self-regulation with no role for government through to jointly developed programs and various forms of 'co-regulation'[48]. Most self-regulatory schemes involve the state in some way, although a distinction has been made between those which are 'mandated' and those 'non-mandated'. Mandated schemes have 'explicit involvement of the state with the specification of self-regulatory schemes in statute' (Bartle and Vass, 2007, p. 891). Another important distinction is between agreements that involve collective liability for industry performance and those that involve individual liability (Börkey and Lévêque, 2000)[49].

According to Gunningham and Rees (1997), the success of self-regulatory regimes is also linked to factors such as:

- the ability of industry associations to establish a new form of 'industrial morality', which provides companies with a set of guiding principles on a particular issue;

- the extent to which a scheme can institutionalise responsibility through the development of policies and procedures which are supported by processes for transparency and accountability;

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[47] Ayres and Braithwaite (1992, pp. 57–58) have argued that the risk of capture can be reduced through tripartism—a regulatory policy which gives public interest groups access to information, a seat at the negotiating table and the same ability to prosecute as the regulator.

[48] The term co-regulation was originally defined Grabosky and Braithwaite (1986, p. 183) as the negotiation of agreements with industry associations for the writing of voluntary codes of practice or guidelines, sometimes including provision for government monitoring of compliance.

[49] According to Börkey and Lévêque (2000), the most common model involves industry-wide targets and collective industry liability for implementation. There is typically no explicit sanction in the agreement, but a real threat of new legislation if the agreement fails. In contrast, Dutch agreements ('covenants') link agreements to the operational licences of firms. Companies have to draft environmental plans for each plant, and unsatisfactory performance can result in a tightening of the operational licence (Börkey and Lévêque, 2000).

- either a strong coincidence between public and private interests in self- regulation, or strong external pressures which convince an industry that its prosperity or survival will depend on an effective system of self-regulation;

- the ability of the scheme to deal with 'free-riders' through industry sanctions, government regulation or third-party oversight (Gunningham and Rees, 1997).

For self-regulation ('clientele pluralism') to work, an industry sector needs to be highly mobilised (Atkinson and Coleman, 1989). The characteristics of a highly mobilised sector include no competition for members between industry associations, a high proportion of companies in a given sector being a member of their association, considerable in-house capacity within firms and associations for technical and political information, and the ability of an association to bind member firms to agreements negotiated with the state (Atkinson and Coleman, 1989). Bell (1992) noted that industry self-regulation tends to be problematic in Australia because of the fragmented nature of industry associations and their lack of leadership on policy issues. In the UK, two attempts to develop an effective system of self-regulation for packaging failed because of differences of opinion between sectors in the supply chain and the recognition that some level of government support would be required. The business group that was established by the government to develop a voluntary program could not reach agreement on key issues, such as the need for a levy to fund recycling, and eventually asked the government to introduce legislation (Eden, 1997).

Corporate policy and policy processes

At a meso level, companies institutionalise new social expectations by changing the way that they operate, i.e. by changing policies and practices[50], in response to stakeholder pressure. Corporate policy and practice is therefore an important indicator of social responsiveness.

There is an extensive managerial literature on environmental management (e.g. Sadgrove, 1992; Schaltegger *et al.*, 2003; Sroufe *et al.*, 2002) but most of these texts have little if

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[50] While a clear distinction can be made in theory between a policy (a decision or principle on which actions should be based) and a practice (an action which has been undertaken) the two are intertwined. In their paper on waste policy, Bulkeley *et al.* (2005, p. 14) observed that 'policy is continually made and remade as it is translated down to specific contexts in which policy is to be implemented, so that the distinction between "policy" and "practice" is false'.

anything to say about PS and its implications for corporate policy. However, the literature on PS and DFE (discussed in Chapter 2), combined with a review of stakeholder expectations and the specific requirements of NPC Mark I (Chapter 4) is used to develop a list of policies and practices that indicate that PS is being institutionalised within a company's operations. The performance of companies within different industry sectors is evaluated in Chapter 5 using a four-point rating system similar to that proposed by Carroll (1979) and Labatt (1991).

This approach can provide some insights into *what* companies are doing but not the dynamics of the decision-making process, i.e. *why* certain actions are taken or not taken by individual companies. As a result, it needs to be combined with some additional micro-level analysis that draws insights from the CSR and organisational behaviour literature. Ackerman (1973) observed that companies proceed through a three-step process in institutionalising a new social objective. First, an issue is identified as important, normally by the chief executive. Second, specialists are employed to work with operational staff to achieve change. Finally, responsibility for the new policy shifts to operational staff through changes in formal control systems. A social issue reaches the end of its life cycle when new standards for dealing with the issue become ingrained within the normal operations of the company (Näsi *et al.*, 1997).

There are often gaps between the publicly stated goals of companies and their actual performance, something which Brunsson (2002) referred to as 'organisational hypocrisy'. Mintzberg (1983) suggested that official goals are often promoted as a public relations exercise for external consumption and not intended to influence corporate behaviour, for example when a company states that its primary goal is to provide service to their clients and profit is secondary. Other writers have suggested that companies manage multiple goals by dealing with them sequentially—giving them a different priority at different times—or by directing particular actions and decisions at different audiences at the same time (Holzer, 2008). For example, the profitability of a company is highlighted in annual reports to shareholders while environmental performance is highlighted in CSR reports or advertisements for a general audience (Holzer, 2008). Brunsson (2002) has claimed that companies attempt to meet the expectations of conflicting external demands, and thereby maintain institutional legitimacy, by meeting some demands through talk, some by decisions, and others by action:

> In traditional administrative and decision theories, management talk and decisions pointing in one direction are assumed to increase the likelihood that corresponding action will be taken. When hypocrisy obtains, there is still a causal relation between talk, decisions and actions, but the causality is the reverse' (Brunsson, 2002, p. xiv).

The amount of 'window dressing' that occurs in a company about which objectives it pursues at different times and how these are presented to different audiences will depend on the operational requirements in different markets and industries (Holzer, 2008).

In this thesis, the institutionalisation of PS through policies and practices in the packaging supply chain is evaluated by rating the performance of companies by industry sector (Chapter 5) and by analysing policy-making processes within individual firms in more detail (Chapter 6).

Company characteristics

Organisational differences mediate the responsiveness of companies to a particular issue within the same organisational field (Delmas and Toffel, 2004; Hoffman, 2001). Powell (1991) suggested that more research is required on processes of institutionalisation and sources of variation in response to institutional pressures. Organisations should not be regarded as passive actors because they exercise strategic choice in relating to their institutional environments (Scott, 1991). Oliver (1991) developed a typology of strategic responses by organisations to institutional processes, ranging from the least to the most passive, which she described as acquiescence, compromise, avoidance, defiance and manipulation. She suggested a number of factors which could predict strategic responses, based on the willingness and ability of organisations to conform to the institutional environment. *Willingness* to conform is limited by 'questions about the legitimacy or validity of the institutional status quo, political self-interests of organisational actors that are at cross-roads with institutional objectives, and organisational efforts to retain control over processes and outputs'. The *ability* to conform is bounded by 'inadequate organisational resources or capacity to meet the requirements for conformity, conflicting institutional pressures that make unilateral conformity unachievable, and lack of recognition or awareness of institutional expectations' (Oliver, 1991, p. 159).

Variations in the way that organisations respond to institutional pressure could be explained by differences between industries in terms of: size, products and markets, access

to resources, labour and capital intensity; competing demands on the organisation; processes of negotiation and compromise between industry and government; and perceptions of institutional requirements within organisations (Powell, 1991). Delmas and Toffel (2004) have argued that companies adopt environmental management practices in response to institutional pressure, but these practices vary because of differences in organisational structure, strategic positioning and past environmental performance[51]. Hoffman (2001, p. 150) stressed the importance of culture and practices at an organisational level in meditating the influence of institutions.

Corporate social responsibilities and responsiveness are clearly linked to the nature of a company's activities— the 'primary involvement' of a company in its social environment (Preston and Post, 1981)[52]. They depend on the nature of the industry sector within which a firm operates, including factors such as public visibility, degree of government scrutiny, competitive structure and culture (Jones, 1999). For example, safety and pollution impacts associated with plastics and chemical manufacture tend to have a higher priority with governments, ENGOs and local communities than the packaging manufactured by their customers. In contrast, the waste and litter impacts associated with packaging are a significant social issue for packaging manufacturers and *their* customers, such as food and beverage manufacturers.

Some writers have argued that large companies are more likely to be socially responsive than small-to-medium size companies (e.g. Buehler and Shetty, 1975; Labatt, 1997; UNCTAD, 1993; Videras and Alberini, 2000) because they have more resources at their disposal, greater vulnerability to consumer criticism, a higher public profile, and greater exposure to socially responsible investment. Gunningham and Sinclair (2002, p. 95) noted that large companies have a greater capacity for environmental self-regulation and monitoring, 'although whether they have a self-interest in developing it is another matter'. Small-to-medium size companies have fewer resources to apply to CSR issues and are

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[51] The model developed by Delmas and Toffel also considers organisational characteristics at a plant level, such as plant size, sources of information on environmental management practices and historical environmental performance. For this thesis, plant level characteristics are not considered, because PS performance is evaluated at a corporate level only.

[52] Primary involvement was defined by Preston and Post (1981, p. 57) as the 'essential economic tasks of the firm—locating and establishing its fixed facilities, procuring supplies, engaging employees, carrying out its production functions and marketing its products'.

often 'invisible' to the community. They also tend to be family-owned and therefore don't have shareholders to consider (Jenkins and Hines, 2003). However, Jones (1999) has argued that large companies may be *less* responsive than small-to-medium size companies because:

- they are both more bureaucratic and less flexible than smaller firms;

- they are more likely to be accountable to shareholders and creditors, with limited discretion to allocate resources to CSR programs unless they benefit the firm's competitive position.

Size may be more likely to play a role when linked to other factors such as public exposure and threats of regulation. Dominant firms, and particularly large firms with a strained relationship with key stakeholders such as regulators, are more likely to feel vulnerable to stakeholder pressure and therefore to play an active role in the development of an industry-wide voluntary code (Prakash, 2000b). Large companies with well known brands, such as Nike, Gap and McDonalds, are highly visible and tend to be targeted by NGOs in their social responsibility campaigns (Klein, 2000). They are therefore most likely to respond to stakeholder pressure in order to protect their reputation and brand image (Roberts, 2003). Companies that are closer to consumers can be expected to have a more progressive attitude to social responsibility (Jones, 1999) and are more likely to face market pressure to change their behaviour (Gunningham and Rees, 1997). Research on environmental practices in the Canadian packaging industry concluded that those with a consumer focus were more responsive to waste management issues (Labatt, 1997).

The impact of ownership (public or private) on social responsiveness is not clear. Labatt's study of the packaging industry was inconclusive on this issue, and others reached contradictory conclusions. A survey of US companies (Buehler and Shetty, 1975) found that responsiveness increased with the number of shareholders, and James's (2002) study of the Australian food and packaging sectors concluded that public companies are more environmentally responsive than private companies. However, Jones (1999) hypothesised that private companies have more discretion to act than public companies and are therefore likely to be more responsive.

TNCs may be more responsive to CSR because they are subject to additional pressure from stakeholders in foreign countries and, as a result, have to meet the laws, customs and

business practices in all the countries where they operate (Zyglidopoulos, 2002). Most of the largest companies in the Australian packaging supply chain are TNCs with their head office located overseas, although Australian companies such as Amcor and Visy also have manufacturing plants in other countries. CSR policies within individual firms tend to reflect issues that are important in their own countries and cultures (Welford, 2004; 2005). Differences in CSR practices between firms have been attributed to different national institutional arrangements, particularly between Europe and the US (e.g. Matten and Moon, 2004; Doh and Guay, 2006). In contrast to the US, CSR has gained momentum in Europe only in recent years. Matten and Moon (2004) have argued that this does not reflect a lack of interest by European firms in social responsibility, but rather the fact that the social consequences of business have tended to be controlled by regulation rather than left to the discretion of corporations. In their view this is linked to the fact that European countries tend to display a different attitude to public risk, as shown by their more extensive regulation of genetically modified organisms. Other differences include a strong philanthropic tradition in the US, whereas in Europe individuals and companies pay higher tax and expect governments to take responsibility for social programs such as health insurance, welfare and the arts (Matten and Moon, 2004, p. 9). Zadek (2001) has argued that UK-based NGOs such as Amnesty International and Oxfam have also been a major driver of corporate citizenship in that country.

For this research, a range of company characteristics are examined as mediating factors in the study of packaging stewardship (Figure 10). They include:

- industry sector;

- public visibility and the extent of government and ENGO scrutiny;

- company size;

- type of ownership (public or private);

- corporate culture;

- the location of the corporate head office.

Figure 10: The role of company characteristics in mediating responsiveness
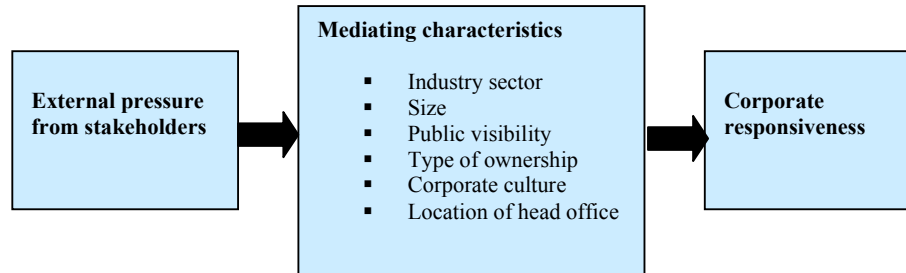
Conclusion

This chapter presented an analytical framework which is used in chapters 4 to 6 to investigate the institutionalisation of PS within the Australian packaging supply chain. First, it confirmed the need for a multi-level analysis of PS that explores interrelated processes at macro (socio-political), meso (industry) and micro (organisational) levels. It also identified four interrelated themes that need to be considered at each level:

- *interest groups* involved in the institutionalisation of PS within policy and practice;

- *discourses* about the packaging problem and corporate responsibility;

- *policies and policy processes* that institutionalise PS through 'techniques of control';

- *company characteristics* that mediate corporate responsiveness to institutional pressure.

The next three chapters will analyse the institutionalisation of PS within policy networks and the packaging supply chain using this framework (Table 10).

Table 10: How the analytical framework is applied in the thesis

Level of analysis (chapter)	Interest groups	Discourses	Policies and policy processes	Company characteristics
Macro: socio-political networks (Ch. 4)	Industry associations, government agencies, trade unions and ENGOs involved in the creation of PS as a new institution.	The story-lines used by associations, governments and ENGOs to frame the packaging 'problem' and policy solutions.	The interaction of competing coalitions in public policy processes.	The influence of economic activities and interests (linked to industry sector) on public policy processes.
Meso: Companies in industry sectors (Ch. 5)	Companies in industry sectors in the packaging supply chain and their economic and political interests.	The language used by companies in different sectors to describe PS responsibilities and commitments.	The implication of PS discourses for corporate policy and practice, and overall industry responsiveness.	The influence of economic activities and interests (linked to industry sector) on corporate responsiveness.
Micro: individual companies (Ch. 6)	Functional groups within individual companies; their PS roles and key stakeholders.	How PS is framed internally by linking it to other business objectives.	Corporate policy processes and structural changes within firms that are helping to institutionalise PS.	The influence of company size, public visibility, location, ownership and corporate culture on responsiveness.

Chapter 4 will explore institutionalising processes at a socio-political level, through which dominant interest groups have helped to define the packaging problem and corporate responsibility. The following two chapters will examine the institutionalisation of PS in the industry as a whole (Chapter 5) and individual firms (Chapter 6).

Chapter 4

The creation of a new institution—product stewardship and the National Packaging Covenant

The aim of this chapter is to explore the institutionalisation of PS at a macro level by asking the question: *How have discursive and public policy processes shaped expectations about corporate social responsibilities for packaging, as well as corporate responsiveness?* The analysis takes an historical approach by tracing the origins of PS back to the 1970s. The account is divided into two time periods (1970–1990 and 1991–2005) to highlight significant shifts in institutional arrangements which occurred during the late 1980s and early 1990s. For example, the 'packaging problem', which was originally associated with packaging waste and litter, shifted to the 'life cycle environmental impacts' of packaging. The organisational field also expanded to include the entire packaging supply chain rather than just those involved in the manufacture and packaging of beverages. Based on the framework presented in Chapter 3, developments in each of these time periods are examined by considering the interest groups, discourses, public policy processes and company characteristics which have influenced the construction and institutionalisation of PS within the packaging supply chain.

The material in this chapter is based on a literature review and interviews with representatives from government, industry associations, companies and ENGOs. To protect the confidentiality of these sources individual names are only used when quoting from published sources.

The end of refillable containers: packaging debates 1970–1990

This period saw the emergence of a 'packaging problem' in Australia as ENGOs, supported by some government agencies, campaigned for regulations that would force companies to use refillable beverage containers. The discursive struggle which ensued over the following two decades focused on the environmental and financial costs of packaging waste and the value of alternative policy solutions. Beverage companies and

their packaging suppliers formed a powerful lobby group to fight legislative proposals and to implement voluntary programs and funding agreements with state governments to reduce litter and waste. In the process they helped to establish voluntary and shared responsibility as the basis for public and corporate policy. Corporate responsiveness was mediated by the amount of pressure being exerted by government agencies and ENGOs on specific industry sectors. Large companies involved in the manufacture of beverages and beverage packaging have the most to lose from packaging regulations and, as a result, acted as 'institutional entrepreneurs' in promoting voluntary environmental stewardship.

The next four sections discuss:

- interest groups in the organisational field, including industry associations, ENGOs and government agencies;

- discourses invoked by interest groups to support their policy beliefs;

- policies and policy processes that defined corporate responsibility for packaging waste and litter;

- company characteristics that mediated responsiveness during this period.

Interest groups: the organisational field at a macro level

The environmental impacts of packaging became a public policy issue in the 1970s in response to two trends in Australia and elsewhere: a shift from reusable to single-use packaging and the emergence of a vocal environmental movement. This resulted in conflict between the beverage industry (and their packaging suppliers) and ENGOs over its benefits and impacts. Other groups which were drawn into the conflict and participated in policy debates were local government, because of its statutory responsibility for waste management, and state and federal government agencies. Key interest groups in the organisational field at a macro level during this period are listed in Table 11.

Table 11: Key interest groups, 1970–1990

National ministerial councils	Australian Environment Council (AEC)
Federal government	House of Representatives Standing Committee on Environment and Conservation
	Department of Science and Environment
	Business Regulation Review Unit
State government	Victorian Parliament—Natural Resources and Environment Committee
	Environment Protection Authority (Victoria)
	Recycling and Litter Advisory Committee (Victoria)
	Recycling and Resource Recovery Council (Victoria)
	Department of Environment (NSW)
	NSW Recycling Committee
	Metropolitan Waste Disposal Authority (NSW)
	State Pollution Control Commission (NSW)
	Environment Protection Authority (SA)
Local government	Municipal Association of Victoria
Industry associations	National Packaging Association of Australia (NPAA)
	Packaging Industry Environment Council (PIEC)
	Packaging Council of Australia (PCA)—formed in 1978 from amalgamation of NPAA and PIEC
	Litter Research Association (LRA) NSW
	Victorian Industry Group (later LRA)
NGOs	Australian Conservation Foundation
	Friends of the Earth (Collingwood)
	Friends of the Earth (Sydney)
	Australian Consumers Association
	Keep Australia Beautiful Council (KABC) Victoria
	Australian Council of Trade Unions (ACTU)

These groups made up the policy network which debated regulatory options in different jurisdictions. Over time two coalitions started to emerge, one advocating state regulation and the other advocating industry self-regulation. The common policy beliefs which underpinned the two coalitions are summarised in Table 12. Based on Sabatier's (1991; 1993) approach to policy analysis, a distinction is made between 'core' policy beliefs and 'secondary aspects' relating to policy implementation. The story-lines which were used to promote these beliefs, and the policy processes which resulted in the institutionalisation of

a voluntary approach to corporate responsibility, are discussed in more detail in the following sections. The aim here is to introduce the key actors, their interests and their policy beliefs.

Table 12: Interest groups and policy beliefs, 1970–1990

Values and beliefs	ENGOs	Local government, Government of South Australia	Federal / most state government agencies	Industry associations / trade unions
Policy beliefs				
Social control of business	State regulation		Industry self-regulation	
Interests which should be given priority	Natural environment	Local communities / natural environment	Policies favoured industry interests (particularly conservative governments)	Industry interests: shareholders /employees
Corporate responsibility	'Producer responsibility': product and packaging manufacturers should be responsible for the physical recovery of packaging waste through return or refill systems		'Shared responsibility': responsibility for recycling and litter management should be shared between product and packaging manufacturers and state or local government	
Policy implementation (secondary aspects)				
The policy issue	Packaging is a significant environmental issue in its own right and symbolic of over-consumption	Packaging is a significant environmental, financial and social issue	Packaging is an important political issue due to high public profile and competing policy demands	Packaging is an insignificant environmental and social issue; financial issues can be addressed through efficiency measures
Policy goals	Reduction in packaging waste and litter			
Preferred policies	CDL and packaging taxes		Voluntary agreements (except CDL in SA)	Voluntary agreements

Beverage packaging began to change dramatically in Australia in the 1950s and 1960s following the introduction of new forms of packaging which challenged the traditional monopoly of refillable glass. These included single-use glass bottles, steel and aluminium cans, plastic bottles and plastic-coated cartons. Before this, beer, soft drinks and milk were all sold in refillable glass bottles and the purchase price often included a deposit which was refunded by retailers when the empty container was returned. Others did not carry a

deposit but the bottles were returned through a wide network of professional bottle collectors and voluntary organisations that collected and sold them back to manufacturers.

The new, single-use containers generated significant benefits for packaging manufacturers, product manufacturers and retailers. They created a larger market for packaging manufacturers because they were only used once and then thrown away, whereas refillable bottles could be reused up to forty times. The benefits to beverage manufacturers included higher sales because of their popularity with consumers, and reduced costs of collecting, sorting and washing empty bottles (Parliament of Australia, 1974).

Single-use containers also played an important role in the restructuring of the beverage industry. The refillable bottle system had imposed 'natural limits' on the market area which could be served by a bottling plant because of transport costs for the return of bottles, whereas single-use containers allowed larger companies to expand their market share at the expense of smaller bottling plants (Rogers, 2007). They therefore supported rapid consolidation of the beverage industry—there were around 600 soft-drink bottlers in Australia the 1950s (McQueen, 2000, p. 129) but today the industry is dominated by a small number of multinational companies. Single-use packaging was also popular with large grocery retailers because it avoided the costs of handling returned bottles and was more compatible with the supermarket approach to merchandising (AEC, 1979, p. 95).

While single-use containers were more expensive, consumers appeared willing to pay the higher price in return for convenience benefits such as their lighter weight and the fact that metal cans were faster to chill and easier to open than glass bottles (Parliament of Australia, 1974). Return rates for refillable bottles fell with the introduction of single-use containers, making them even less profitable. By 1989 refillable bottles made up only 10% of all glass containers in Australia in 1989, although they were still widely used in South Australia (IC, 1991a, p. 61)[53].

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[53] In 1989, 96% of beer was packaged in refillable bottles and containers in South Australia compared to only 16% for Australia as a whole. The figures for soft drinks were similar at 98% in SA compared to 19% for Australia. This was due to the favourable treatment they received under deposit legislation in that state which imposed higher deposits on non-refillable containers. However, this distinction was removed after a decision by the High Court in 1990 which forced the government to change deposit levels (IC, 1991b).

These changes in packaging and distribution were taking place at the same time that a vocal environment movement was emerging in Australia, reflecting similar developments in Europe, the US and Canada. Increasing social concerns about environmental issues such as air pollution, water quality and nuclear power resulted in the introduction of comprehensive state-based environmental legislation in Victoria, NSW and Western Australia in the early 1970s[54]. In this context, ENGOs argued that single-use beverage packaging was environmentally unsustainable because of its negative impacts on resource consumption, pollution, waste and litter. The Australian Conservation Foundation published a brochure entitled *The Packaging Plague* (ACF, 1974) which outlined its concerns about packaging and called on the federal government to impose mandatory deposits and taxes to encourage the use of refillable containers and recyclable materials.

Increasing volumes of household refuse were also starting to create problems for local government, which tended to blame the packaging industry. They reported that volumes of waste had increased significantly over the previous fifteen years and that there had been noticeable increases in paper, glass, and can components. This in turn was placing strains on collection and disposal facilities and adding to disposal costs. Costs continued to rise in the 1970s and 1980s[55], prompting debates about who should be financially responsible for the disposal of used packaging. Local government associations and ENGOs lobbied state and federal governments for regulations such as CDL, which would force companies to use returnable bottles. The Municipal Association of Victoria (MAV) argued that '[t]he financial incentive of returning containers would encourage most consumers to recycle, and also the collection of thrown away returnable containers for redemption. The reduced collection and disposal costs would accrue to local government' (Austin, 1983, p. 200).

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[54] In Victoria Henry Bolte's Liberal government established the *Environment Protection Act 1970* and the Environment Protection Authority following an election campaign in which they campaigned strongly on environmental issues. The Liberal Party had feared being swept from power because of a voter perception that they were indifferent to 'quality of life' issues such as air pollution, national parks and water quality (Unglick, 1996).

[55] From the late 1970s more attention was paid to the environmental impacts of waste disposal, and improved landfill management practices increased disposal costs. In states such as Victoria, the rising costs of waste disposal were more of a problem than the availability of landfill space. This was due to stricter planning controls and operational requirements for landfills (RALAC, 1988, p. 21) as well as the introduction of larger 'wheelie bins' in some local government areas (NREC, 1984, p. 70).

A number of regulatory proposals were being debated at federal and state government levels, and the packaging industry realised that it had to take action. As one industry member noted in 1972:

> The packaging industry in affluent countries has come in for more than its fair share of blame for the growing problems of litter and solid waste and it has been readily demonstrated that unless the industry stands up and is counted and takes a positive approach to help overcome the problems of litter and solid waste then it can expect that attempts will be made through legislative action and other means to limit its growth and prosperity (Pearce, 1972, p. 1).

While noting that industry had to defend itself against 'environmental emotionalism', he also argued that the industry would not 'win friends nor solve problems by presenting what appears to be logical and factual arguments'. Rather, '[i]t must do something and be seen to do something' (Pearce, 1972, p. 5). The National Packaging Association of Australia (NPA) argued that community concerns were largely based on ignorance, 'provoking emotional and ill-informed reaction from the public and media and attracting political attention', but that these concerns could be addressed through the provision of 'factual information' by industry (NPA, 1972, p. 1). The Packaging Industry Environment Council (PIEC) was formed in 1972 to provide additional resources to the industry campaign, with a particular focus on 'liaison' with state and federal governments. Another important industry association established during this period was the Litter Research Association (LRA), formed in 1978 by beverage and packaging manufacturers in NSW to fund a voluntary anti-litter education program called *Do the Right Thing*. Similar associations were formed in other states and eventually combined into a national organisation, the Litter Research and Recycling Association (LRRA).

Industry's arguments against legislation stressed its potential impact on jobs. For example the federal government's recommendation for a packaging tax was 'totally rejected' by PIEC (1975b, p. 1) on the basis that it would be 'discriminatory, inflationary and will certainly contribute to unemployment'. During the early 1980s, the Executive Director of the Packaging Council of Australia (PCA) suggested that 'refillable containers in a modern society are about as outmoded as the out-house and the night cart' and that compulsory deposits would lead to a loss of jobs and investment in the packaging and beverage industries and increased costs to retailers (O'Brien, 1983, p. 202). The packaging

industry therefore found powerful allies in the trade union movement, particularly when negotiating with Labor governments.

Packaging discourses: waste, litter and the 'throw-away society'

Debates about the environmental impacts of packaging during this period involved competing story-lines which were used to support alternative regulatory proposals. While the issues were complex and individuals and groups did not always express consistent views, a summary of the main arguments is provided in Table 13. While governments at a state and federal level expressed similar views to ENGOs in the early 1970s their rhetoric shifted progressively over time to more closely reflect industry's arguments.

The first issue concerned the environmental benefits and impacts of packaging in general and single-use packaging in particular. For the environmental movement, single-use packaging symbolised the unsustainable nature of industrial production and consumption. In the post-war years disposability had been promoted as a positive selling point by manufacturers (Strasser, 1999) but widely publicised research on the 'limits to growth' (Meadows *et al.*, 1972), the first UN Global Conference on the Human Environment held in Stockholm in 1972, and the 'oil crisis' in 1973–74 contributed to debates about the environmental impacts of consumption, including packaging[56]. Within this context, disposable products and 'design for obsolescence' were seen as symptomatic of broader social problems (Packard, 1960; Papanek, 1971; Toffler, 1970). ACF (1974, p. 7) claimed that 'Australia's resources are being squandered by the packaging industry to produce goods that are unwanted and unnecessary'. The federal government (Parliament of Australia, 1974, p. 7) noted that beverage containers 'symbolise for many people the wasteful and despoiling aspects of our consumption-oriented society' and argued that society had to decide 'whether it is desirable, or even possible in the long term to permit the continued expansion of the "throw-away ethic"'. Packaging was therefore given a

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[56] For example, the federal government inquiry into beverage container deposits (Parliament of Australia, 1974, p. 35) noted that '[s]ince the Inquiry commenced in August 1973, the dependence of industrialised countries on energy resources has been demonstrated and has heightened community awareness of that dependence. The need for rational and efficient management and use of resources is an issue which cannot be ignored in assessing the implications of a deposit system on beverage containers'.

moral dimension by ENGOs and governments by linking disposable products to irresponsible and unethical behaviour.

Table 13: Story-lines employed to support policy proposals, 1970–1990

Issue	Self-regulation coalition: industry associations, trade unions, federal government, most state governments	State regulation coalition: ENGOs, Australian Consumers Association, local government, Government of South Australia
Single-use packaging	*The social benefits of packaging* Packaging is important to protect and transport products to the consumer. Single-use packaging is more convenient for beverage manufacturers, retailers and consumers than refillable bottles. It also makes an important economic contribution through investment and jobs.	*Packaging and the 'throw-away society'* Single-use packaging has been introduced by industry to avoid the costs of collecting and reusing bottles. This type of 'disposable' packaging is contributing to a 'throw-away' ethic and unsustainable patterns of production and consumption.
Packaging waste	*The waste challenge* There is no waste crisis because Australia has enough landfill space. Packaging makes up a small percentage of the waste stream and has minimal environmental impacts in landfill. Financial and environmental costs can be reduced through improved systems for waste management.	*The waste crisis* Packaging makes up a high percentage of the waste stream and causes environmental damage in landfill. Diminishing landfill space and stricter environmental standards are causing waste management costs to increase, thus imposing unacceptably high costs on local government and ratepayers.
Litter	*Litter is a people problem* Packaging makes up a small percentage of the litter stream and is caused by the irresponsible behaviour of people who refuse to dispose of packaging correctly. The economic and social costs can be reduced through education programs and the provision of more litter bins.	*Litter is a packaging problem* Packaging makes up a high percentage of the litter stream and is caused by the shift from refillable to 'throwaway' containers. The economic and social costs can be eliminated by forcing industry to use refillable bottles.
Recycling	*Recycling should be optimised* Recycling programs should be established for packaging materials with a commercial value. Recycling generates environmental and social benefits and collection should be funded by local government, which has a statutory responsibility for waste.	*Reuse and recycling should be maximised* All beverage packaging should be refillable. If this is not possible then recycling programs should be established and funded by the beverage and packaging industries that created the waste in the first place.
Responsibility for managing packaging impacts	*Shared responsibility* Recycling and litter reduction for packaging is a shared responsibility of packaging manufacturers, product manufacturers, consumers and local government.	*Industry responsibility* Recycling and litter reduction for packaging is a corporate responsibility. Companies who benefit from its use should pay for any social and environmental costs.

The packaging industry countered these arguments by asserting that packaging was both *necessary* and *beneficial* to consumers:

> To assure [sic] that all products reach the consumer in a usable state, the package often protects the product against moisture, dirt, microorganisms, and, in some instances, light, oxygen, heat or cold; it also often protects against loss of ingredients, flavours and fragrances ... every form of packaging has a practical purpose, and ... has been very carefully designed to perform that function in the most efficient and economical way possible (PIEC, 1974a, p. 10).

The second issue concerned the contribution of packaging to waste in landfill and the extent to which this represented an environmental problem. Waste volumes were increasing to such an extent in the 1970s that many ENGOs and local government associations began to talk about a 'waste crisis' and to identify single-use packaging as a major source of the problem. ACF expressed alarm at the growing volumes of waste:

> By the end of the century, our garbage will be five times the present weight, seven times the present volume, and will cost easily 10 times as much to get rid of ... Most of the increase will be due to packaging, as we steadily catch up with the American packaging consumption level (ACF, 1974, p. 6).

In local government's view, manufacturers had a responsibility to reduce the volume of waste requiring disposal and to develop new ways to reprocess it as raw materials for other purposes. They also suggested that a tax be imposed on the manufacture of beverage containers and the revenue redistributed to local government to fund the costs of disposing of the beverage container component of solid waste (Parliament of Australia, 1974).

In their defence manufacturers of beverage containers argued that their products represented a small proportion of solid waste and their activities were being 'unjustly singled out for special attention' (Parliament of Australia, 1974, p. 7). This was attributed to the 'emotional' significance of packaging, linked to its high visibility and non-degradability (Robson, 1972, p. 6). PIEC (1974a, pp. 10–11) tried to divert attention away from packaging and towards broader waste management problems:

> To state that the problems of waste disposal facing councils are all due to packaging shows an appalling ignorance of the subject of waste disposal—to say the least. Surveys conducted by Governments in various countries indicate that packaging accounts for between 13% and 15% of solid waste ... The real problems of solid waste disposal are the availability of landfill sites, the increasing costs of collection

and transport, and the lack of a modern system of State and regional
organisation, such as that employed for sewage disposal and water
supply (PIEC, 1974a, pp. 10–11).

Some industry associations claimed that their packaging was actually beneficial in landfill.
For example, a representative of the steel industry (Wright, 1972, p. 7) claimed that the
disposal of steel cans in landfill was simply 'giving back to the earth its iron', while the
Plastics Industry Association argued that plastics 'are non-biodegradable, they do not rot
and therefore do not give off polluting gases or contribute to soil and water contamination
(Kettle, 1972, p. 2).

The third issue which was discussed in packaging discourses was the role and impacts of
packaging in litter. Unlike some of the broader environmental concerns about packaging,
the problems associated with litter were considered to be primarily social or economic:
clean-up costs, inconvenience for local government, negative impacts on amenity and
safety hazards from broken glass and metal ring-pulls (e.g. ACA, 1982; AEC, 1979; AEC,
1982; NREC, 1984; Parliament of Australia, 1974). Litter was not regarded as a
significant environmental problem. Even ACF (1974, p. 6) only mentioned it in passing as
'an eyesore we can't escape', a hazard due to broken glass and a financial cost. PIEC and
other industry associations tried to downplay the problem, arguing that litter formed only
1% of solid waste (cited in Parliament of Australia, 1974, p. 22).

The fourth issue related to the importance placed on recycling as a solution to the
environmental impacts of packaging. The packaging industry argued that '...the greatest
contribution that the packaging industry can make to problems of solid waste management
in the future will be to encourage the installation of programs of better collection,
segregation and recycling of waste material. To do this will require the provision of
people, resources and finance' (Robson, 1972, p. 7). Packaging manufacturers, either
individually or through associations such as LRA, worked closely with local government
to establish collection and recycling programs. The first municipal drop-off facilities were
established in the 1970s[57], and the first comprehensive kerbside collection program was
established in Melbourne in 1984 (Sondreal, 1987). Faced with increasing waste disposal

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[57] Knox Council in Victoria launched the first program in 1975, with residents encouraged to bring
back their bottles, papers, cans and glass to the council depot, and to leave bottles out for collection
with their garbage. The material was sold to manufacturers for recycling. Similar schemes were
established in Nunawading in Victoria and Belconnen in the ACT in 1978.

costs, local governments were looking for alternative ways to manage waste and were adapting systems which had already been introduced in Europe: '[t]he motivation for providing kerbside recycling was both political and economic. Councils who commenced kerbside services identified high levels of recognition and support from ratepayers, reflecting the high visibility and "retail" nature of waste management as an environmental issue' (PCA, 2006, p. 18). By 1989, 61% of local governments in Australia provided some form of kerbside recycling service (PCA, 2006, p. 17). Governments at all levels promoted the benefits of recycling and encouraged the expansion of kerbside collection programs for waste paper and packaging. The result of these policies was a fundamental shift in the way that we think about rubbish: it both problematised waste and revalued it as a recyclable resource (Hawkins, 2006).

The final issue concerned the distribution of responsibility between companies, consumers and governments for the impacts of waste and litter. ENGOs and local government groups argued that manufacturers were responsible and should be forced, through regulation, to take packaging back for reuse or recycling. For example, the Australian Consumers Association claimed that beverage containers made up 35% of household waste by volume, and the costs of disposal were being unfairly borne by councils, and ultimately the ratepayer, rather than industry (ACA, 1982). Industry groups did not accept the argument that they were responsible for managing the waste which was generated by their products after use. For example, while they accepted that packaging contributed to litter, they argued that industry itself was not the polluter: 'Litter is the result of actions of a careless few who, while prepared to enjoy the benefits of modern packaging themselves, consider that others should endure the residual inefficiencies' (PIEC, 1977, p. 4). This view is reflected in the moral overtones of their advertising campaign, with its message to 'Do the Right Thing'. The beverage and packaging industries supported recycling through investments in reprocessing facilities and support for kerbside collection programs, but as the scale and costs of recycling programs increased in the 1980s they became more vocal in arguing for 'shared responsibility' with local government:

> It has often been said that the packaging industry should bear the cost
> of reducing packaging waste and litter. Industry does not accept this,
> and feels that local government, on behalf of the community, should
> assume greater responsibility for recycling (Barber, 1988, p. 5).

This view was supported by state governments, who largely accepted the principle of shared responsibility and worked collaboratively with industry groups and local councils to establish kerbside collection programs.

These discourses on the ethics of disposability, the 'waste crisis', litter impacts, the recycling solution and corporate responsibility helped to create a new institutional environment for companies in the packaging supply chain. Packaging was now regarded as a social problem and both governments and industry were expected to find solutions.

Policies and policy processes: the push for container deposit legislation

Numerous proposals for the regulation of packaging were raised and debated over this period. While many of these involved some form of state regulation, the most significant outcome was the establishment of voluntary agreements between governments and industry associations in all jurisdictions outside South Australia (Table 14). These agreements prompted companies involved in beverage packaging—brand owners and packaging manufacturers, sometimes in partnership with raw material suppliers—to establish collection and reprocessing facilities for packaging.

While taxes or bans were proposed in NSW and Tasmania in the early 1970s, the most common proposal was for mandatory redeemable deposits on beverage containers in order to encourage the use of refillable bottles. This policy was introduced by the South Australian Government in 1975 despite opposition from the local soft drink and beer industries and packaging manufacturers[58].

Following the announcement by the South Australian Government that it would introduce CDL, the AEC passed a resolution which requested that the federal government conduct a public inquiry into a national system of mandatory deposits. The inquiry received over 100 submissions, mostly in favour of deposits, and recommended a tax on packaging which did not carry a refundable deposit and a ban on detachable 'ring pulls' on metal cans (Parliament of Australia, 1974).

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[58] Higher deposits were imposed on non-refillable containers, providing manufacturers with a strong incentive to retain the use of refillable bottles. SA was particularly amenable to the introduction of CDL because unlike the eastern states, it still had the extensive voluntary deposit system for the return of refillable beer and soft drink bottles which had been in operation for over 100 years.

Table 14: Policy processes and outcomes 1970–1990

1972	NSW Government proposal to introduce a packaging tax (Beale, 1972). Proposal not implemented
1973	Tasmanian Government proposal to include packaging taxes and bans in the *Tasmanian Environment Protection Act 1973*. These provisions were removed from the Act following lobbying by industry (PIEC, 1973)
1974	Federal government inquiry into container deposits on behalf of AEC (Parliament of Australia, 1974) recommended a tax on any packaging without a redeemable deposit CDL introduced in South Australia
1976	Recommendations of the federal government inquiry rejected by state governments (PIEC, 1976)
1978	LRA NSW formed to implement the voluntary *Do the Right Thing* campaign in conjunction with the NSW Government, as a result of NSW Government interest in CDL
1979	NT Government established the Territory Anti-Litter Committee with funding from the packaging industry A report by AEC on the management of packaging waste canvassed a wide range of options including voluntary initiatives and state regulation, e.g. taxes and deposits (AEC, 1979)
1981	AEC Resolution 215 (June 1981) supported a voluntary approach to recycling of packaging AEC invited industry, through PCA, to undertake voluntary initiatives to reduce waste and litter LRA Queensland formed to implement the *Do the Right Thing* campaign following discussion with the Queensland Government
1982	A report by AEC into litter control (1982) recommended voluntary industry initiatives rather than state regulation The Victorian Government commenced an inquiry into CDL by the Natural Resources and Environment Committee (NREC)
1984	The report of the Victorian inquiry into CDL (NREC, 1984) recommended a voluntary recycling and litter management program funded by the Victorian Industry Group (VIG, later renamed LRA)
1985	The Recycling and Litter Advisory Group (RALAC) was established in Victoria with broad representation to oversee the industry-funded program
1987	The NSW Recycling Committee established with broad representation
1988	Report to the Tasmanian Department of Environment, Litter Control Council and Municipal Association of Tasmania on recycling (Balmer, 1988), with funding support from LRA, recommended against CDL
1989	A report on CDL by the federal government's Business Regulation Review Unit (BRRU, 1989) with funding support from LRA, recommended CDL not be introduced

The recommendations of the inquiry were rejected by packaging manufacturers and trade unions on the basis that they would threaten investment and jobs. According to PIEC, they were also opposed by state governments. At a meeting between federal and state environmental agencies and PIEC in mid-1976, state government representatives are reported to have said that the recommendations of the committee were 'generally unacceptable' and that the onus was on industry to reduce the amount of packaging in the waste stream (PIEC, 1976, pp. 1–2).

One of the issues of concern to governments was clearly the potential impact that a forced return to refillable containers would have on capital investment and employment in the glass and aluminium can industries (AEC, 1979, pp. 98–100). Their reluctance to impose new environmental regulations on the packaging industry was also consistent with an ideological shift within state and federal governments (both Labor and conservative) in the late 1970s and early 1980s. During this period conservative think tanks such as the Institute for Public Affairs, with funding support from business interests, waged a concerted and successful campaign to promote neo-liberal policies such as deregulation and privatisation through public debate and policy processes (Smith and Marden, 2008)[59]. Similar campaigns were being implemented in other countries, and tendencies towards deregulation and privatisation were putting 'the national environmental state' under pressure after two decades of institution building (Spaargaren and Mol, 2008).

In June 1981 the AEC passed a resolution to invite industry, through the PCA, to undertake a series of voluntary actions, including improvements in recycling, payment of 'maximum resource values' for used materials, consumer education, design for recycling and consideration of 'the possibilities of reversing the trend towards one-way beverage containers' (AEC, 1982, p. xiv). They threatened that if these actions were unsuccessful then other measures, including CDL, would be considered.

By this stage the beverage and packaging industries had already started to introduce voluntary programs as a result of negotiations with individual state governments, particularly NSW. The Minister for Planning and Environment had expressed an interest

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[59]The influence of conservative think tanks on environmental policy continued in the following decades. For example, Pearse (2007) highlighted close links between John Howard's conservative government and think tanks such as the Institute of Public Affairs, Centre for Independent Studies and the Sydney Institute on the development of climate change policy.

in CDL in the late 1970s following a visit to Oregon (Wacher, 1988). However, following discussions with the NSW Government, the *Do the Right Thing* litter control campaign had been established as a joint government–industry initiative within the State Pollution and Control Commission, with industry funding. The arrangement was formalised through a written agreement which included the statement that either party could withdraw if measures were introduced at a state or federal level which conflicted with its spirit or intent. This was interpreted by industry groups to mean that the program was conditional on CDL not being introduced (BRRU, 1989, p. 31). In addition to its direct funding to government, the industry also provided substantial funding to Keep Australia Beautiful (KAB) in NSW. Similar agreements were reached with other state governments in the 1980s[60], and LRA eventually became a national organisation called the Litter Research and Recycling Association (LRRA).

ENGOs were opposed to voluntary agreements and continued to lobby governments, unsuccessfully, for greater regulation. They had opposed the original voluntary agreement in NSW:

> The Labor government which was elected in 1976 agreed to the removal of the reusable container with the deposit, and we produced a short paper on why we should keep container deposits. The government took no notice of us and instead introduced this multi-million dollar litter control campaign, *Do the Right Thing*... Well we tried to stop that happening and we met the then Minister for the Environment, Paul Landa, [but] unfortunately the conveyors and the cleaning systems in the plant were shut down and an alternative manufacturing system was put in place. Of course the argument then became that it was all going to cost too much to reverse the capital

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[60] LRA was established in Queensland after discussions with the Premier in 1981–82 and programs were run independently of government and involved less government coercion than in other states (BRRU, 1989). In Western Australia (WA), anti-litter and recycling programs were managed by KAB, which in that state is a statutory authority, with funding from government and beverage manufacturers. Like the other states, industry members in WA had an understanding that financial contributions were conditional on CDL not being introduced, although this was not in any formal agreement (BRRU, 1989). In the Northern Territory (NT), the Territory Anti-Litter Committee was established in the late 1970s with representatives from government agencies, local government, KAB and industry. Companies in the beverage and beverage packaging industry provided funding to the committee to underwrite its programs (BRRU, 1989). The Victorian Industry Group, which was formed by the beverage industry and its packaging suppliers to fight CDL in Victoria, later changed its name to the Victorian Industry Litter Research Association and then LRA. In Tasmania an industry-funded anti-litter campaign began in February 1980 on the proviso that deposit legislation would not be introduced by the Tasmanian Government during that period (AEC, 1982, p. 12).

investment, there would be jobs lost etc. (Personal communication, ENGO D).

The Australian Consumers Association (ACA, 1982, p. 467) referred to the packaging industry as 'that prolific producer of potential litter' and argued that 'the apparent concern for the environment indicated by the industry's support for public education campaigns looks more like a smokescreen for profitable and less ecologically sound developments, within the industry, than any genuine attempt to solve the litter problem'. They called on all state and territory governments to implement legislation such as CDL to encourage a return to refillable containers before the system was completely dismantled (ACA, 1982).

Most ENGOs regarded KAB and *Do the Right Thing* as a public relations front for industry rather than a genuine environmental organisation. There are different views on the origins of KAB[61], but the packaging industry has always played a major role in its management and funding. It was based on a similar initiative in the United States, where Keep America Beautiful was formed by the American packaging industry to address the litter problem (Pearce, 1972; Rogers, 2007). KAB has been criticised as 'corporate greenwash' in both the US (Rogers, 2007, p. 121) and Australia. In the mid-1970s ENGOs claimed that KAB was 'carrying out a misleading and dangerous policy by claiming litter was caused by the public when the real culprits were the packaging companies' ('Conservationist attack on grant to KABC', *The Australian*, 15 January 1975, p. 5).

Despite the decision by the AEC to encourage voluntary responsibility in preference to legislation, the Victorian Government initiated its own inquiry into CDL in 1982. Undertaken by the Natural Resources and Environment Committee (NREC) of the Victorian Parliament, the inquiry lasted two years and received almost 500 submissions. This proved to be a critical period of debate which ultimately established voluntary agreements as the preferred approach to packaging policy, both in Victoria and nationally. Liberal and National party members of the committee were opposed to CDL because they

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[61] The NPA said that they had played a significant role in establishing KAB in Victoria in 1971 (NPA, *Environment Newsletter*, September 1972, p. 3), although Dame Phyllis Frost claimed that it was established in 1963 by the National Council of Women and that she later sought contact with the NPA to discuss the litter problem (reported in PIEC, 1975a, p. 3). According to another report the Victorian KAB organisation was established in 1967 (NREC, 1984, p. 61). By 1974 KAB had a national coordinating body, branches in all states except NSW, and funding from different levels of government, packaging manufacturers and individuals (Parliament of Australia, 1974).

regarded it as too costly, while Labor members were split between those who supported it and those who opposed it:

> That was a very bitter inquiry and was split on party lines. It even led to some splits in the Labor Party amongst their ranks, the merits or otherwise of it. In general terms it was such a divisive and bitter inquiry it shocked even the Committee itself ... One of the Labor members ... was an ex-milk bar proprietor, and he had a bent against it [CDL], saying that as an ex-milk bar proprietor he couldn't put up with all these bottles lying around! (Personal communication, State Government B)

Almost all of the groups and individuals who made submissions or presentations to NREC supported CDL:

> Fifty-two Victorian municipalities made submissions to the Committee in support of deposit legislation. One opposed deposit legislation. Eight community health groups, three conservation groups and four other community groups also supported deposit legislation as did many individuals either in submission or in letters to the Committee and its members ... The Australian Council of Local Government Associations and all State Local Government Associations support the introduction of container deposits (NREC, 1984, p. 279).

CDL was strongly opposed by industry groups and trade unions representing workers in the packaging industry. The unions lobbied members of NREC directly:

> I know at the time that one of the Labor members of the Committee had the glass workers trade union ... targeting him and absolutely harassing him at home, phoning him in the middle of the night and all that sort of stuff (Personal communication, State Government B).

The opposition of at least one of the Labor members to CDL meant that the committee ultimately voted against CDL in favour of a voluntary approach[62]. They recommended that the government negotiate a voluntary agreement between the government and the

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[62] This decision was based on the view that a compulsory deposit system would be disruptive and costly for industry because Victoria, unlike SA, had largely lost the retail and bottle merchant system which had supported the return of refillable bottles (NREC, 1984). However, there were two minority reports included in the final report. One of these was submitted by the Vice Chairman of NREC, a Labor member, who argued that the majority report 'desires ecological chastity, but not now', and that this approach 'is not derived from an objective assessment of the evidence before the committee'. He also observed that '[i]n a political environment where deregulation has become a popular catch-phrase and an ideological test of purity, consideration of beverage and drink container deposit legislation on its merits by a Parliamentary Committee is made more difficult' (NREC, 1984, p. 313). The second minority report was submitted by two other Labor members who were opposed to its decision against CDL.

beverage industry, based on a proposal submitted by the Victorian Industry Group (later renamed LRA). They sought a guarantee from the government that, in return for its voluntary support for litter and recycling programs for a three-year period, it would not introduce CDL (NREC, 1984, p. 201). NREC argued that CDL should be used as a last resort, to be introduced only if industry failed to negotiate satisfactory agreements or if performance was not satisfactory.

The Victorian Government accepted NREC's recommendations and established the Recycling and Litter Advisory Committee (RALAC) in 1985 to oversee the collaborative program. The committee initially included two representatives of the beverage and beverage packaging industries, two trade union representatives (the Australian Glass Workers Union and the Pulp and Paper Workers Union), two local government and two community/ENGO representatives. The conflicting values and policy beliefs of interest groups continued to be evident during the years of RALAC's operation. For example, one of their annual reports included 'a dissenting view' from one of the two 'community' representatives on the committee (unnamed), who argued that the voluntary approach had failed because recycling rates were inadequate and costs were being imposed unfairly on local government rather than industry, and that CDL should be introduced (RALAC, 1988, pp. 26–29).

Two relatively distinct policy coalitions therefore emerged during the period 1970–1990. The Australian Consumers Association, ENGOs and local government associations all argued for regulations which would shift the costs of waste management from local government back on to the packaging supply chain. However, their ability to influence government policy was limited. Beverage manufacturers developed a strong alliance with their packaging suppliers through state-based associations (LRA or similar) which were well-resourced and supported in policy negotiations by trade unions representing packaging industry workers. These associations became closely involved in policy development and implementation through the negotiation of voluntary agreements with state governments to fund anti-litter and recycling programs. The packaging industry, trade unions and state governments all had a common interest in protecting capital investment and jobs which were generated by an expansion in the production of single-use packaging. The government–industry partnerships which developed during this period became the basis for a tightly knit policy community which largely excluded ENGOs and

local government associations, and laid the groundwork for the 'shared responsibility' approach to packaging policy which was formalised in the late 1990s through the NPC.

Company characteristics: industry sector and public profile

It is clear from the above analysis that corporate responsiveness to stakeholder pressure during this period was linked to industry sector and, more specifically, to the nature of the packaging that companies were manufacturing or using. Beverage packaging, particularly for soft drinks and beer, became a target for environmentalists and government agencies in the 1970s because of the rapid shift from refillable glass bottles to single-use containers made from glass, aluminium and plastics. This coincided with, and contributed to, an increase in litter and waste disposal costs, and in the eyes of many ENGOs became symbolic of unsustainable patterns of production and consumption. As one government report noted, '[a] matter which started simply as a concern over the tendency for beverage containers to be a conspicuous part of litter has become a *cause célèbre* of the environment movement' (AEC, 1979, p. 94, emphasis in original).

In response to ENGO campaigns and regulatory pressure, packaging manufacturers and beverage brand owners joined together to develop voluntary litter education and recycling programs through the association (LRA) which was formed specifically for that purpose. Beer and soft drink manufacturers and their suppliers were the most responsive because these products were regulated by container deposit legislation in South Australia (milk and juice products were exempt at that stage). Through voluntary agreements with state governments, companies provided funding for *Do the Right Thing* education campaigns, litter infrastructure, recycling drop-off centres and kerbside collection programs, particularly for glass and aluminium cans. Collection programs for recyclable packaging were supplied to reprocessing facilities established by individual companies.

However, the willingness and ability of companies to recycle their packaging was constrained by the market value of materials. Collection programs for used glass bottles and aluminium cans were established for both political and commercial reasons, because these materials had a financial value to manufacturers. Refillable glass bottles were sold back to the fillers (soft drink and beer manufacturers) and recyclable containers were sold to glass packaging manufacturers. The leading glass manufacturers, Australian

Consolidated Industries (ACI) and Australian Glass Manufacturers, began to set up drop-off centres for glass in 1967 (PIEC, 1974b) and later supported house-to-house collections (Hansen, 1987)[63]. Aluminium cans also had a commercial value as feedstock for the manufacturing process, with one manufacturer claiming in 1972 that for the aluminium industry, 'the reclamation and recycling of scrap has always been a process that strengthened its economics' (White, 1972, p. 1). Comalco began its aluminium can recycling program around 1971 and Alcoa in 1977, and by the late 1980s both companies were involved in promotional programs and door-to-door collections.

Steel, plastics and paper packaging did not have sufficient economic value to justify collection from households on a commercial basis— recycling services were only established in the 1990s in response to pressure from governments and ENGOs. For example, major suppliers of plastics packaging for beverages established reprocessing facilities in the late 1980s in order to avoid legislation and a potential consumer backlash if they were not recycled, although most were initially operating at a loss (IC, 1991b)[64].

The role of industry sector and public profile in mediating corporate responsiveness is illustrated in Figure 11. The most responsive companies were those in the beverage industry and their packaging suppliers because of the high visibility of their products in the waste and litter stream. However, the responsiveness of companies was also linked to the economic value of recycled materials.

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[63] Until the 1970s council garbage collectors had collected glass bottles which were left out with the household rubbish bin, although this practice came to an end when councils started to use independent garbage contractors and introduced new forms of waste collection services such as the 240 litre mobile 'wheelie bin'. Both of these practices resulted in more glass going to landfill. ACI stepped in to ensure that glass collections continued (Hansen, 1987).

[64] Brickwood Holdings, the largest manufacturer of high density polyethylene (HDPE) milk bottles, established a reprocessing facility in Melbourne in 1990 as a joint venture with its resin supplier, Kemcor. ACI Plastics Packaging established a pilot recycling plant for polyethylene terethphalate (PET) in Sydney in 1988 and a commercial plant in Wodonga in 1991. The other major supplier of PET, Smorgon Plastics, built the first mixed plastics recycling plant in Melbourne in 1989. Both ACI and Smorgon levied soft drink producers to fund a subsidised buy-back price for PET bottles which encouraged councils and collectors to add it to kerbside collections. The largest manufacturer of polyvinyl chloride (PVC) resin, ICI Australia, established a PVC recycling program in 1990.

Figure 11: Company characteristics mediating responsiveness, 1970–1990

External pressure from stakeholders	Mediating characteristics	Corporate responsiveness
■ Threats of regulation ■ ENGO campaigns ■ Voluntary agreements with state governments	Industry sector: ■ Visibility of products in the waste and litter stream ○ beverage containers (beer & soft drinks) most visible ■ Economic value of recycled materials (business case for recycling) ○ aluminium & glass most recyclable	■ Collective industry funding for recycling and litter infrastructure / education ■ Corporate investments in recycling

While the term 'product stewardship' was not yet in common use between 1970 and 1990, some sectors in the packaging supply chain were already engaged in activities designed to reduce the environmental impacts of packaging in the waste stream. A certain amount of corporate social responsibility for packaging had become 'taken-for-granted' within the packaging field and companies were starting to respond.

Negotiating the National Packaging Covenant: packaging debates 1991–2008

During this second period a number of institutional shifts occurred. The organisational field expanded to include a wider group of industry sectors, including food manufacturers, non-food brand owners and retailers. There was also increased involvement from the federal government and national ministerial councils. External pressure on companies from government agencies and ENGOs was applied to the packaging supply chain as a whole and not just those involved in the manufacture of beverages and beverage packaging. At the same time packaging discourses shifted away from household waste and litter and increasingly focused on the 'life cycle' impacts of packaging. From a public policy perspective, there was increasing recognition that state-based agreements were ineffective and they were eventually replaced by the NPC. Corporate responsiveness continued to be mediated by the extent of government and ENGO pressure, but with an increasingly important strategic role played by industry associations. The industry sectors

which had been exposed to pressure for the longest time—beverage manufacturers and their packaging suppliers—were the most proactive in trying to establish a new institutional framework for packaging. In their role as institutional entrepreneurs they worked to convince companies in other sectors, as well as government agencies, that PS was an appropriate and effective framework for the environmental management of packaging.

The next four sections discuss:

- interest groups in the organisational field, which expanded to include all sectors in the packaging supply chain;

- discourses invoked by interest groups to support their policy beliefs;

- policies and policy processes that defined PS in its current form to include voluntary and shared responsibility for the 'life cycle management' of packaging;

- company characteristics that mediated responsiveness during this period.

Interest groups: an expanding policy network

Between 1991 and 2008 there were some significant shifts in the interest groups involved in packaging discourses and policy processes. The organisational field widened to include industry associations representing companies at every stage of the packaging supply chain as well as recyclers, and policy coalitions became more formalised. Some of the key interest groups during this period are listed in Table 15, and their common policy beliefs are summarised in Table 16. Core policy beliefs did not change during this period, although some of their 'secondary aspects', or policy solutions, did. For example, industry groups shifted their focus to in-house activities such as design and procurement, which were designed to influence 'life cycle impacts' as well as packaging waste. Policy solutions were described in terms of 'shared' rather than 'voluntary' responsibility, in order to emphasise the role of local government in waste management. ENGOs and local government associations continued to advocate CDL, but under the broader banner of 'extended producer responsibility'.

Table 15: Key interest groups 1991–2008

National ministerial councils	Environment Protection and Heritage Council (EPHC)—previously the National Environment Protection Council (NEPC) and some components of the Australian New Zealand Environment and Conservation Council (ANZECC)
Federal government	Commonwealth Environment Protection Authority (CEPA)
	Department of Environment and Heritage (DEH)
	Productivity Commission (previously the Industry Commission)
State government	Environment Protection Authority (Victoria)
	Recycling and Litter Advisory Committee (Victoria)
	Recycling and Resource Recovery Council (Victoria)
	Environment Protection Authority (NSW)
	Department of Environment and Conservation (NSW)
	Environment Protection Authority (SA)
	Department of the Environment and Conservation (WA)
Local government	Australian Local Government Association (ALGA)
	Municipal Association of Victoria (MAV)
	Local Government and Shires Association of NSW (LGSA)
Industry associations	Australian Chamber of Manufactures (ACM)
	Packaging Council of Australia (PCA)
	Packaging Environment Foundation of Australia (PEFA)
	Beverage Industry Environment Council (BIEC)—previously LRA
	Australian Supermarkets Institute (ASI)
	Plastics and Chemicals Industries Association (PACIA)—previously Plastics Industry Association (PIA)
	Australian Food and Grocery Council (AFGC)—previously Grocery Manufacturers Association (GMA)
	Association of Liquidpaperboard Carton Manufacturers (ALC)
	Product Stewardship Group (PSG)
	National Packaging Council Industry Association (NPCIA)
	Recyclers Association of Victoria (RAV)
Multi-party organisation	National Packaging Covenant Council (NPCC)
NGOs	Australian Conservation Foundation (ACF)
	Friends of the Earth (Collingwood)
	Friends of the Earth (Sydney)
	Keep Australia Beautiful Council (KABC)
	Worldwide Home Environmentalists' Network (WHEN)
	Nature Conservation Council, NSW (NCC)
	Total Environment Centre, NSW (TEC)
	Boomerang Alliance
Trade unions	Pulp and Paper Workers Union (PPWU)—later amalgamated into the Construction, Forestry, Mining and Energy Union (CFMEU)

Table 16: Interest groups and policy beliefs, 1991–2005

Values and beliefs	ENGOs	Local government, Government of South Australia	Recycling industry	Federal / most state governments	Industry associations / trade unions
Policy beliefs					
Social control of business	State regulation		Industry self-regulation/co-regulation		
Interests which should be given priority	Natural environment	Local communities / natural environment	Recycling industry interests—shareholders and employees	Policies favoured industry interests (particularly conservative governments)	Packaging industry interests - shareholders and employees
Corporate responsibility	'Producer responsibility': product and packaging manufacturers should be responsible for the financial costs of recycling and litter management for packaging waste		Mixed, but many would agree that product and packaging manufacturers should subsidise recycling	'Shared responsibility': responsibility for recycling and litter management should be shared between companies in the whole packaging supply chain, consumers and state/local government	
Policy implementation (secondary aspects)					
The policy issue	Packaging is a significant environmental issue in its own right and symbolic of over-consumption	Packaging is a significant financial, environmental and social issue	Packaging is an important environmental and economic issue (loss of resources)	Packaging is an important political issue due to high public profile and competing policy demands	Packaging is an insignificant environmental and social issue; financial issues can be resolved through more efficient waste management systems
Policy goals	Reduction in packaging waste and litter		Reduction in life cycle environmental impacts of packaging		
Preferred policies	CDL or EPR regulations	CDL or EPR regulations (although some support for voluntary agreements)	Most support voluntary agreements (NPC) but some have also supported more state regulation, e.g. CDL at certain times		Voluntary agreements (NPC)

As Sabatier (1991; 1993) predicted, the stability of core policy beliefs meant that the composition of policy coalitions remained virtually unchanged, albeit with some additions. In the mid-1990s BIEC developed a broader alliance with other sectors of the packaging industry, through the newly formed Packaging Stewardship Group (PSG), to develop a national approach to policy. This group later evolved into the NPC Industry Association (NPCIA). Industry associations were concerned that state-based policies, particularly in Victoria and NSW, appeared to contradict the voluntary national process which was already under way. They found supporters within environmental agencies, particularly in Victoria and NSW, who realised that state-based industry agreements were time-consuming to negotiate and difficult to enforce. This period was also characterised by a 'winding back of the regulatory state' in many western countries as a result of declining political support for direct intervention in business affairs (Gunningham, 2002, p. 148). Industry found some supporters within local government, particularly the Municipal Association of Victoria (MAV), who accepted the principle of ratepayer-funded recycling and agreed to work with industry to improve the efficiency of kerbside recycling.

In the early 1990s trade unions were active in opposing Victorian legislation which would have imposed a tax on some packaging, but were completely absent from negotiations for the NPC. This may reflect the declining membership and power of the union movement at this time as well as the lack of any perceived threat to the interests of their members[65].

The early 1990s saw a resurgence of public concern about environmental issues and a renewed interest in waste and packaging issues. A number of grassroots ENGOs were established by people who were interested in personal action and wider campaigns to address environmental issues. For example, a local branch of the Worldwide Home Environmentalists' Network (WHEN) was formed in Melbourne in 1990 and quickly expanded into a national association. The group emphasised personal responsibility for the environment and encouraged members to reduce household waste by purchasing products without packaging. They also campaigned for refillable glass milk bottles by encouraging members to send empty plastic bottles and cartons back to manufacturers.

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[65] Trade union membership fell by 26% between 1988 and 2003, and the trade union membership rate fell over the same period from 42% to 23% (ABS, 2004).

ENGOs such as FOE actively campaigned for greater product responsibility and the introduction of CDL in Victoria and NSW (e.g. Denlay, 1997; Hopper, 1992). They were opposed to voluntary agreements in principle, and lobbied against the NPC in the mid-1990s. ENGOs were deliberately excluded from the policy network which negotiated NPC Mark I because their values and beliefs meant that they were unlikely to support the policy framework which had been developed by the industry and governments (discussed further below under 'policy and policy processes'). When their lobbying efforts proved to be ineffective, a number of ENGOs formed a coalition with the Local Government and Shires Association of NSW (LGSA) called the 'Boomerang Alliance' to influence policy negotiations for NPC Mark II[66]. By this stage local government associations had an even stronger interest in packaging policy because of their exposure to the increasing costs of kerbside collection programs. The Boomerang Alliance concentrated the groups' resources and enabled them to lobby politicians and government officials throughout the country and to maintain a high media profile. They were also able to draw some support from companies in the recycling industry:

> The other thing that changed is that we now have powerful green recycling industry interests that have excess capacity ... That additional dimension of the campaign, which we are obviously working with as much as we can, nullifies some of that traditional retail and packaging industry influence (Personal communication, ENGO D).

The beverage industry and its packaging suppliers continued their funding of anti-litter and recycling programs during this period, both directly through LRRA (later the Beverage Industry Environment Council, BIEC) and through government partnerships. However, with governments around the country starting to target packaging as a whole and not just beverage packaging, industry associations began to work together more closely on policy proposals as well as voluntary PS initiatives. Negotiations between government agencies and industry started to include associations such as:

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[66] In 2004 its members included the Australian Conservation Foundation, Clean Up Australia, Conservation Council of Western Australia, Friends of the Earth, Total Environment Centre, Queensland Conservation Council, Greenpeace, Tasmanian Conservation Trust, Arid Lands Environment Centre, Environment Victoria, Nature Conservation Council of NSW, Local Government Association of NSW and the Shires Association of NSW. The two local government groups are represented by the Local Government and Shires Association (LGSA).

- the Grocery Manufacturers Association (GMA), representing food and beverage manufacturers, which later changed its name to the Australian Food and Grocery Council (AFGC);

- the Australian Supermarket Institute (ASI), representing Coles and Woolworths;

- the Plastics Industries Association, representing companies who supplied plastics to the packaging industry, which later changed its name to the Plastics and Chemicals Industries Association (PACIA);

- the Association of Liquidpaperboard Carton Manufacturers (ALC), representing companies which manufactured paperboard cartons for beverage packaging.

A number of companies from different sectors[67] established the Packaging Environment Foundation of Australia (PEFA) in October 1990 with the specific objective of influencing corporate and government policy.

Kerbside collection and recycling programs for packaging, which were established in the 1980s but grew strongly in the 1990s, involved the recycling industry in packaging discourses and policy processes. However, there were different interest groups within this sector. Companies involved in the kerbside collection and sorting of packaging materials—services funded by local government and reprocessors—had a lot to gain from policies which increased recycling. The interests of reprocessors tended to be different. Reprocessing was done by the raw material suppliers or packaging manufacturers themselves, such as ACI Glass, ACI Petalite, Brickwood Holdings (plastic milk bottles) and Alcoa (aluminium cans). These companies were involved in recycling for both political and commercial reasons and, unlike ENGOs and collectors, had an interest in limiting recycling operations to materials which were commercially profitable to reprocess and reuse in packaging. This varied depending on trends in global commodity prices.

Local government originally supported kerbside recycling programs because they generated some income and were regarded as a solution to the rising costs of waste disposal. However, this changed in the mid-1990s when prices started to collapse:

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[67] The members of PEFA included ACI Packaging, Alcoa, Coca Cola Amatil, Coles-Myer, Containers Packaging, Du Pont, Gadsden Rheem Packaging, Smorgon Consolidated Industries and Woolworths.

When recycling first started it was a reasonably lucrative thing to get involved in. [Councils] set up recycling services because there were good markets for the products and it saved them burying lots of waste which meant their landfills would last longer ... So financially it made sense for them to get into recycling. Unfortunately after about five years of recycling some would say it worked too well, because the market basically collapsed around 1995. Suddenly the prices that councils were offered for the stuff they were collecting dropped, in some cases overnight (Personal communication, Local Government B).

Local government associations were actively involved in policy negotiations during this period at both state and federal levels, although they did not always have a common position on key policy issues. While the associations have always argued for increased responsibility and funding from the packaging industry, the Municipal Association of Victoria (MAV) was more conciliatory in negotiations for the NPC. They agreed that local government has primary responsibility for packaging waste management and signed the NPC. In contrast, the NSW Local Government and Shires Association (LGSA) lobbied heavily for industry subsidies to meet the 'funding gap', i.e. the gap between the costs of collecting and sorting recyclable materials and the prices received from recycling companies, and this became an important driver for the financial component of the NPC. The LGSA was influenced by the failure of the NSW Local Government Recycling Cooperative, which had been established to gain the best price for all recyclable materials collected by local governments in NSW. The cooperative had collapsed due to instability in the market (Sommer, 2006).

Consumers also became active supporters of recycling during the 1990s[68], reflecting increasing concerns about the environmental impacts of packaging. Unlike many environmental issues like global warming and land degradation, packaging is highly visible in household waste and litter and this is reflected in environmental surveys[69]. Packaging appears to be a symbol of broader concerns about the environment, and people

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[68] For example, in 2003 over 95% of Australians claimed to be recycling waste at home, compared to only 88% in 1996 (ABS, 2003, p. 13).

[69] In one survey undertaken for the Boomerang Alliance (Newspoll, 2004), 84% of respondents said they considered packaging waste to be a problem, 75% said there was too much packaging, and 70% said that packaging manufacturers are responsible for Australia's packaging waste problem. When participants in another survey were asked about pro-environmental behaviours in the last twelve months, 71% said they had avoided plastic bags and 66% had avoided packaging (DEC, 2006, p. 60).

participate in kerbside recycling programs because this is one way that they can take personal action to alleviate environmental problems (Allison, 1998; IC, 1996). The service provided by consumers as 'recyclers', which supports the commercial interests of reprocessors and the packaging supply chain, has been explained by Hawkins (2006, p. 108) in altruistic terms:

> [R]ecyclers are part of a network of relations in which used newspapers and empty bottles, the containers they're put in, the trucks that pick them up, the companies that buy them, and the governmental and popular discourses that justify these actions all become vital elements in the performance of environmental good ... For the householder, the carefully sorted containers on the street are a gift to the environment that symbolically confers value on the person who placed them there.

The strong support for kerbside recycling in the general community combined with continuing campaigns by ENGOs against disposable packaging help to explain the continuing interest of state and federal governments in packaging policy in the 1990s.

Packaging discourses: defining corporate responsibility

During this period ENGOs continued to attack packaging as environmentally damaging and often unnecessary, with grassroots organisations such as WHEN providing advice to members about strategies in the home to avoid packaging. In response, industry groups promoted the social and economic benefits of packaging through education and public relations campaigns. However, the story-lines which were invoked by interest groups to describe the 'packaging problem' in policy debates shifted in subtle ways, and these shifts significantly influenced policy outcomes (Table 17).

Table 17: Story-lines employed to support policy proposals, 1991–2008

Issue	Self-regulation coalition: industry associations, trade unions, federal government, most state governments	State regulation coalition: ENGOs, local government, Government of South Australia
Single-use packaging	*The social benefits of packaging* Packaging is important to protect and transport products to the consumer. It also makes an important economic contribution through investment and jobs.	*Packaging and the 'throw-away society'* 'Disposable' packaging is contributing to unsustainable patterns of production and consumption and is contrary to ecologically sustainable development (ESD).
Packaging waste	*Efficiency of waste management systems* Packaging makes up a small percentage of the waste stream and packaged food reduces waste compared to home cooked food. Waste should be considered within the context of the total 'life cycle' of packaging. There are more significant environmental impacts than post-consumer waste. The financial and environmental costs of waste can be reduced through improved systems for waste management and recycling.	*The high costs of packaging waste* Packaging makes up a high percentage of the waste stream and causes environmental damage in landfill. Diminishing landfill space and stricter environmental standards are causing waste management costs to increase, thus imposing unacceptably high costs on local government and ratepayers. Government policy should be based on the waste hierarchy and ESD principles.
Litter	*Litter is a people problem* Packaging makes up a small percentage of the litter stream and is caused by the irresponsible behaviour of people who refuse to dispose of packaging correctly. The economic and social costs can be reduced through education programs and the provision of more litter bins.	*Litter is a packaging problem* Packaging makes up a high percentage of the litter stream and is caused by the shift from returnable to 'throwaway' containers. The economic and social costs can be reduced by introducing CDL.
Recycling	*Recycling should be optimised* Recycling programs should only be established for packaging materials which have a commercial value to manufacturers. Recycling generates environmental and social benefits and kerbside collection should be funded by local government because it has statutory responsibility for waste management.	*Reuse and recycling should be maximised* Reuse and recycling programs should be established and funded by industry because it created the waste in the first place.
Responsibility for managing packaging impacts	*Shared responsibility (product stewardship)* The impacts of packaging are a shared responsibility of packaging manufacturers, product manufacturers, consumers and local government.	*Extended producer responsibility* The impacts of packaging are a corporate responsibility. Companies that benefit from its use should pay for any social and environmental costs.

During the 1980s and 1990s waste shifted from something requiring disposal to something which had to be 'managed' through strategies such as 'minimisation' and recycling to achieve greater industry efficiency and environmental care (Hawkins, 2006, p. 103). Packaging policy debates also began to consider waste issues within the broader context of 'ecologically sustainable development (ESD)'[70]. For example, the NSW *Waste Minimisation and Management Act 1995* stated that it was based on the principle of the 'waste hierarchy'[71] because the hierarchy 'prioritises ecologically sustainable waste solutions' (NSW EPA, 1995, p. 2). The Boomerang Alliance has criticised the 'wasteful' use of non-renewable resources for packaging associated with unsustainable consumption (Boomerang Alliance, 2004), even claiming that 'packaging is a perfect demonstration of the wasteful society' (Angel, 2005, p. 2). Local government associations have also broadened their arguments in support of waste policy beyond the problems associated with litter and waste. For example, the LGSA argued that waste policy should be based on the principles of ESD, inter-generational equity and the precautionary principle (LGSA, 2006).

Consistent with this more systemic approach to waste policy, governments and industry groups began to use the 'life cycle' metaphor in packaging discourses. This reflected sustainable development discourses as well as the increasing use of life cycle assessment (LCA) as an environmental evaluation tool. The federal government's *National Waste Minimisation and Recycling Strategy* (CEPA, 1992) included for the first time a commitment to a 'life cycle (cradle to grave) approach to waste management which encompasses all aspects of resource use, waste generation, storage, transport, treatment and disposal' (p. 11). This represented a significant shift in thinking: it broadened the policy focus from household waste and litter to the 'life cycle impacts' of packaging.

Industry groups played an active role in promoting a life cycle approach, arguing that packaging needs to be considered within a broader supply chain context. This was based

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[70] The term 'sustainable development' entered the public debate after the World Commission on Environment and Development published their landmark report, *Our Common Future*, in 1987. Sustainable development was defined in this report as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987, p. 43).

[71] The waste hierarchy prioritises waste reduction over reuse, followed by recycling and then disposal as a last resort.

in part on the argument that packaging makes up only 10% of solid waste and is therefore not a major contributor to the waste stream (PCA, 2006, p. 7). They also claimed that from a total supply chain perspective packaging reduces rather than increases the amount of waste generated[72].

Competing story-lines about packaging, waste, litter and recycling continued to be used to promote alternative approaches to corporate responsibility, but with some important discursive shifts. Industry associations borrowed the term 'product stewardship' from the chemical industry and the 'shared responsibility' policy model from the US, and promoted these principles as the basis of a voluntary national agreement. Advocates of shared responsibility claimed that the post-consumer management of packaging is largely the responsibility of local government and should be funded by ratepayers:

> They take the view that you best show producer responsibility where you can be effective, and that's basically within your own business. The other half of producer responsibility—end-of-life stuff—both for values reasons and practical reasons a lot of [the association] members struggled with then and probably struggle with today (Personal communication, Industry association B).

Advocates of shared responsibility during this period, including industry associations and state and federal government agencies, supported self-regulation with 'back-up' regulations to control the 'free-rider' problem. Industry no longer argued that regulations such as CDL would threaten jobs and investment in the packaging industry because the goals of the policy had shifted to recycling and litter reduction rather than the need to reintroduce refillable containers. Instead, they highlighted the additional costs to consumers in lost deposits and time taken to return bottles to collection depots, and the social costs of the extensive infrastructure required to implement CDL in addition to kerbside recycling (e.g. C4ES, 2000).

Most government agencies regarded the NPC as a pragmatic and more effective way of regulating the industry:

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[72] Industry's argument is that processed food generates waste at the factory, where it can easily be reused or recycled, whereas buying fresh food (with less packaging) and cooking it at home generates waste which is more likely to go to landfill (AFGC, 2006; Miletic, 2007; PCA, 2006).

> What has always worried me about regulating is that if you regulate, industry will just toe the letter of the law. They will do what they are required to do, and any additional thinking goes out the window. What [the NPC] does is that it actually forces them to ... look at their own practices and look at what they can do ... (Personal communication, State Government C).

At the same time ENGOs and some local government associations lobbied for regulation based on the principle of EPR. They agreed that producers have a responsibility to reduce the life cycle environmental impacts of packaging but argued that this includes taking physical and/or financial responsibility for the post-consumer management of packaging. One ENGO commented: 'Our position on EPR is that all of that responsibility should go back up the chain to those who enter the marketplace to make money out of a product, so genuine *producer* responsibility as distinct from shared responsibility' (Personal communication, Local Government B). According to the EPR perspective, the solution is to impose regulations such as bans, taxes, mandatory deposits (CDL) or advance disposal fees (e.g. Boomerang Alliance, 2006b). This position appears to be supported by the general public (Hill, 2004; Newspoll, 2004, p. 3; White, 2001c, p. 23).

These discourses contributed to public policy processes, discussed in the next section, which resulted in the successful negotiation of the NPC in the mid-1990s. The 'discursive struggle' to define the packaging problem and corporate responsibility was ultimately won by the self-regulation coalition. Despite vocal arguments to the contrary, particularly from ENGOs, the problem was defined in terms of the life cycle impacts of packaging (rather than waste) and PS was established as the principle which underpins corporate responsibility for packaging.

Policies and policy processes: a new co-regulatory approach

Between 1991 and 2005 voluntary environmental agreements shifted from a state to a national level. Over this period the PS institution was also progressively defined in more detail, as general principles such as voluntary corporate responsibility and life cycle management were translated into more specific and transparent 'techniques of control'. However, the institution remains under pressure from stakeholder groups frustrated by a perceived lack of progress towards environmental goals. Key processes and events are summarised in Table 18.

Table 18: Policy processes and outcomes 1991–2005

Year	
1991	Policy negotiations began between jurisdictions and industry associations on national waste reduction agreements *National Packaging Guidelines* (ANZEC, 1991) published by the National Packaging Taskforce Negotiation of the *Environment Protection (Resource Recovery) Bill* in Victoria
1992	The Commonwealth EPA published the *National Waste Minimisation and Recycling Strategy* (CEPA, 1992) *Environment Protection (Resource Recovery) Act 1992* passed in Victoria—provided for voluntary Industry Waste Reduction Agreements (IWRAs) The voluntary *Environmental Code of Practice for Packaging* developed by industry associations (AIG *et al.*, 1997)
1993	Implementation of national waste reduction agreements
1994	NSW waste policy released (NSW Government, 1994)
1995	Renegotiation of national waste reduction agreements *Waste Minimisation and Management Act 1995* passed in NSW—included mandatory Industry Waste Reduction Plans (IWRPs)
1996 - 1998	Negotiation of NPC Mark I
1999	NPC Mark I signed—broader industry sector involvement, action plans and reporting requirements NPCC established
2000	Implementation of NPC—increasing number of signatories
2001	Report to the NSW Government recommended the introduction of CDL (White, 2001a). The government referred the issue to EPHC for consideration as a national scheme
2002	An investigation of CDL commissioned by the ACT Government (C4ES, 2002) recommended against it due to the high cost and potential impact on kerbside recycling
2003	An investigation of CDL commissioned by the Victorian Government (Victorian EPA, 2003) concluded it would impose significantly higher costs on consumers The SA Government extended CDL to include non-carbonated soft drinks, fruit juice and flavoured milk under 1 litre and alcoholic beverages up to 3 litres
2004	Evaluations of NPC Mark I recommended improvement including increased commitment and transparency from signatories Negotiation of NPC Mark II
2005	NPC Mark II signed—introduction of targets, KPIs, and ENGO representation on NPCC
2006	Report on the Productivity Commission's inquiry into waste management published (Productivity Commission, 2006)—argued against PS/EPR policies in general and questioned the value of the NPC in cost-benefit terms Investigation of CDL commissioned by the Tasmanian Government (Parliament of Tasmania, 2006) supported CDL subject to a cost-benefit analysis The Minister for the Environment in WA announced CDL would be introduced

	The Victorian Government rejected CDL due to its high cost and potential to undermine recycling (Smart, 2006)
2007	The WA Government investigation of CDL continued
	EPHC affirmed their commitment to phase out single-use plastic shopping bags by January 2009 (EPHC, 2007)
	EPHC commissioned a study into CDL and other 'complementary mechanisms' to support achievement of NPC targets (MMA and BDA, 2007)—CDL not recommended due to high administrative costs and equivocal information on cost-effectiveness
2008	The SA Government announced a ban on plastic shopping bags (commencing 2009)
	The SA Government increased the mandatory deposit on containers from 5 to 10 cents
	Drink Container Recycling Bill 2008 introduced to the Australian Senate by Steve Fielding (Family First party)—included requirement for stewardship plans by industry to achieve 80% recycling rate. Referred to a Senate committee
	Report on the Senate inquiry into the *Management of Australia's waste streams* (SCECA, 2008) recommended EPHC work towards a national CDL scheme
	Mid-term review of NPC noted that targets were likely to be met and recommended extension post-2010 with some improvements (Lewis, 2008). EPHC requested NPCC to prepare a framework for a further extension of the NPC beyond 2010 and other options (including complementary mechanisms) for consideration by EPHC (EPHC, 2008b)
	EPHC rejected a national ban or levy on plastic bags and supported an expansion of voluntary programs (EPHC, 2008b)

The following discussion focuses on policy processes and policy outcomes in four sections: the shift from state-based to national policy initiatives, the negotiation of the first covenant (NPC Mark I), the negotiation of the second covenant (NPC Mark II), and some final comments on continuing challenges to the NPC.

The shift from state-based to national policy

A new approach to packaging policy was developed during the 1990s. It was national; it involved the entire packaging supply chain; it explicitly acknowledged the principle of shared responsibility; and it eventually shifted the focus from waste management to life cycle impacts. At first the intention was to develop a national approach to recycling, through initiatives such as:

- *National Packaging Guidelines*, which included a waste reduction target for packaging of 50% by the year 2000 and a series of voluntary actions by government and industry to promote waste reduction and recycling (ANZEC, 1991);

- the *National Waste Minimisation and Recycling Strategy,* which aimed to reduce household waste by 50% and introduced voluntary industry plans and recycling targets for individual packaging materials (CEPA, 1992).

Four industry associations, the Australian Chamber of Manufactures, BIEC, PCA and the Plastics Industry Association, also worked together to develop the voluntary *Environmental Code of Practice for Packaging* (ECoPP) in 1992. The code outlined actions which could be taken by companies to reduce the environmental impacts of packaging during the design process, and was later updated and included as a schedule to the NPC.

At the same time, the state Labor government in Victoria made another unsuccessful attempt to impose stricter regulations on the packaging industry. The *Environment Protection (Resource Recovery) Bill 1991* proposed a system of Industry Waste Reduction Agreements with companies which manufactured or imported beverage containers, newspapers, magazines, phone books and take-away food. Agreements needed to include performance targets and a levy to support recycling. Companies which did not enter into a voluntary agreement would be taxed at a rate of one cent per item as a 'waste creator'. The rationale was that the economic viability of kerbside collection programs was under threat and needed additional financial support[73]. The proposed legislation also included a $2 per tonne levy on waste to landfill, intended to match funding from the industry levy, and would have given the EPA the power to ban 'environmentally damaging' products (Crabb, 1991, p. 1299).

The Bill was supported by some ENGOs, who held a rally in May 1992 in support of the legislation (Humphrys, 1992), and some beverage container manufacturers:

> The pressure was from the glass and aluminium industry who were keen to spread the cost of maintaining the kerbside pick-up system, which in turn was a way of avoiding CDL (Personal communication, State Government F).

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[73] The market for recycled newsprint had collapsed in the previous year because of an over-supply in global markets, and combined with a fall in the price paid for collected aluminium, this had resulted in an increasing need for programs to be subsidised by local government. The Recyclers Association of Victoria put out a media release which claimed that 'without guaranteed money and commitment from industries, recycling collection could fall over in the next four weeks' (cited in van Buren, 1992, p. 975).

However, it was opposed by local government, most of the packaging industry and trade unions. Local government associations initially opposed the Bill but changed their position after negotiation of a significant concession[74]. Industry groups and trade unions opposed the levy, the one cent tax and the power to ban environmentally damaging products on the basis that these provisions would increase costs to consumers and industry and threaten jobs. Initially the industry groups who were opposed to the legislation were lobbying and negotiating with government separately. They later decided to coordinate their efforts and to negotiate directly with the opposition. According to one government negotiator, this made a big difference:

> So then we moved into the second phase. [Industry said to me],
> 'You've been playing us off against each other for 12 months'. So
> they actually all got together and started to ruffle us. Up till then they
> were right, we'd been playing one group off against another. We'd
> kept them all off balance and had done it reasonably successfully,
> such that the opposition to us was very divided, strong but divided ...
> [After that] industry was very organised (Personal communication,
> State Government F).

The Pulp and Paper Workers Union (which later amalgamated with other unions to form the Construction, Forestry, Mining and Energy Union or CFMEU) supported the paper industry in their opposition to the Bill, and made direct representations to the Minister for the Environment. They were also directly involved in a campaign by Amcor's 'A-Team' against the legislation[75]. Union members from Amcor's Maryvale Mill were transported to Melbourne to participate in public meetings attended by the minister, the EPA and industry groups. One government representative noted that 'the local employers were bussing the unionists in to heckle us, the CFMEU, these were not nice people' (Personal communication, State Government F). The same person also recollected a meeting between the union and the then Minister for the Environment, Steve Crabb:

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[74] The $2 levy was regarded as a new tax, but local government associations supported it after EPA negotiators proposed a higher levy on industrial waste to landfill, which would be returned to local government along with the $2 levy from municipal waste. This effectively meant that they would receive more money than they were contributing.

[75] According to a *Four Corners* program on ABC television (Neighbour, 2006), the A-Team consisted of Amcor 'volunteers' who were given paid leave to support the company's interests in environmental debates. They were led by a consultant who was jointly funded by Amcor and the Pulp and Paper Workers Union. The program claimed that '[t]he A-Team unashamedly pushed the company line. They lobbied state and federal governments to amend recycling and anti-dumping laws to benefit Amcor'.

The unions came in at one point with Crabb. There was a private
meeting in his office which I attended—I shouldn't have been there—
and the union, I suspect it was the CFMEU or whatever it was called
then, threatened him. And he threatened them back, and he was
impressive! He came out on top. He said, 'I know where your bodies
are, and I've got no compunction in dealing with you bastards, so get
off my back!' And they did (Personal communication, State
Government F).

Ultimately the opposition parties were able to use their numbers in the Upper House to
pass a series of amendments which removed the proposed tax and the ability to ban
products. Arguing that the original legislation would damage the economy and impose
more 'red tape' on industry, the opposition supported a more voluntary approach: 'The
coalition ... believes the middle of a recession is not the time to consider introducing a
new tax that disadvantages job creation industries (Birrell, 1992, p. 930).

The final *Environment Protection (Resource Recovery) Act 1992* included a provision for
Industry Waste Reduction Agreements (IWRAs) which could be either entered into
voluntarily by industry or required by the EPA, and which could involve contributions to
recycling programs. While several IWRAs were eventually negotiated with industry
groups or companies voluntarily, the process was slow and overly bureaucratic. One
government representative suggested that 'the EPA wasn't pushing and wasn't being
particularly assertive ... and industry were putting up even less than we could accept'
(Personal communication, State Government F). By the mid-1990s the EPA was advised
that the IWRA provisions in the Act could not be enforced and they initiated discussions
with industry associations on a voluntary national approach.

Similar policy debates were taking place in NSW. In the early 1990s the Liberal
government supported voluntary industry plans for waste reduction, and packaging was to
be one of the first industries to be targeted under the program (NSW Government, 1994).
Before the new legislation could be introduced there was a change of government, and the
new Labor government introduced the *Waste Minimisation and Management Act 1995*.
This introduced a 60% waste reduction target by 2000 and gave the Minister for
Environment the ability to develop mandatory Industry Waste Reduction Plans (IWRPs)
for particular sectors. These plans were designed to allow industry some flexibility in
developing their response to waste reduction targets, but there were also sanctions for
companies or industry groups which did not make sufficient progress. These included

provisions for fines, product bans and mandatory product take-back requirements. However, negotiation of sector-based agreements proved to be time consuming and counter productive and there were no penalties in the Act for non-compliance. The NSW Government therefore joined forces with the Victorian Government in negotiating the NPC, and later strengthened its own legislation to provide it with the ability to enforce industry agreements if the national approach did not deliver adequate outcomes[76].

The NPC was therefore the result of several policy developments at state and federal levels. Government agencies in NSW and Victoria had realised that the negotiation of individual industry sector agreements at a state level was too time consuming, and industry associations argued that different approaches in each state were inefficient and costly to implement in a national market. Both groups became involved in the renegotiation of national waste reduction agreements in 1995 under the auspices of ANZECC[77](IC, 1996). The federal Labor government, through the Commonwealth EPA and with the support of state government agencies, attempted to negotiate much higher voluntary targets for some materials, a move opposed by industry associations. In 1996, the Liberal–National party coalition government took office in Canberra and announced that it would be more sympathetic to industry's concerns about recycling targets (Campbell, 1996).

Negotiating NPC Mark I (1999–2005)

The idea of a national packaging 'protocol' or covenant was originally raised by the Packaging Environment Foundation of Australia (PEFA) in 1992, when they recommended a national policy based on the Dutch Packaging Covenant[78]. It was first discussed publicly at a packaging industry-sponsored conference in 1996, and was

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[76] The *Waste Avoidance and Resource Recovery Act 2001* replaced IWRPs with 'Extended Producer Responsibility Schemes', which would extend corporate responsibility to the post-consumer stage of the product life cycle. It gives the minister the power to require EPR schemes for a product, group of products or an industry in NSW.

[77] ANZEC's name changed in 1992 to the Australian and New Zealand Environment and Conservation Council (ANZECC).

[78] PEFA's report on waste and packaging policy (Puplick and Nicholls, 1992) recommended a shift in focus from packaging to the total waste stream, an integrated approach to waste management which included waste reduction as well as recycling, and a national policy framework for packaging based on the Dutch Packaging Covenant.

supported in principle by ANZECC. Previous government policies had targeted beverage manufacturers and their packaging suppliers but, in November 1996, ANZECC directed officials to 'commence negotiations, encompassing local government and *all parts of the packaging supply chain*, on a national packaging agreement based on the principle of shared responsibility' (ANZECC, 1999, p. 1, emphasis added). Industry associations representing raw material suppliers, packaging manufacturers, brand owners and retailers formed the Packaging Stewardship Group (PSG) to develop a coordinated approach. However, at that stage there was a diversity of opinion about policy objectives (or 'secondary' policy beliefs, as Sabatier referred to them):

> [PSG] started out as a defensive measure. We were under pressure—if we don't get our act together we're going to get hammered—very cynical, very defensive. But it had a very broad membership; it had both pragmatists and ideologues. The pragmatists were trying to use the group to create a consensus to say look, we have to do something. The ideologues were trying to use the group to say we have to do something, yes—we have to fight this politically (Personal communication, Industry association B).

According to this person, the 'pragmatists' included members and staff of BIEC and PCA (representing the beverage industry and most packaging sectors), while the 'ideologues' included members and staff from the Association of Liquid Cartonboard Manufacturers (ALC) and the ASI (representing manufacturers of liquidpaperboard cartons and retailers). The GMA (representing food brand owners) was not committed either way. In reality, this was a disagreement between companies that were already engaged in recycling and litter programs and those that had only recently been brought into the policy process. There was, however, a degree of consensus that something needed to be done to avoid regulation: 'Well, the whole purpose, certainly from [our] perspective, was a blocking strategy. If you've got the covenant in there you don't get legislation (Personal communication, industry association D).

By October 1997 the draft covenant had been drawn up by a working group comprising packaging industry and government representatives, with significant input by PCA and the Victorian EPA. Government officials persuaded the GMA and the retailers to participate, although the ASI initially declined to attend meetings (Williams, 1997).

The biggest obstacle to finalising negotiation of the covenant was the need to find a resolution to the funding issue for kerbside recycling:

It should be recognised that these negotiations took place at a time
when state politicians were being told, directly by local government,
and indirectly via the media, that kerbside recycling was 'in crisis' as
a result of reduced prices being paid for collected materials (van
Rijswijk, 2000, p. 356).

A joint committee was set up between the PSG and local government through the
Australian Local Government Association (ALGA), who were regarded by the packaging
industry as the key group with whom agreement needed to be reached (van Rijswijk,
2000). This committee, called the Australian Kerbside Recycling Alliance (AKRA), met
for over a year to negotiate an agreement on recycling. Industry groups asserted that
kerbside recycling should be based on 'market prices' rather than subsidies by the
packaging industry which had been provided in the past, whereas local government
representatives claimed there was a 'gap' or 'shortfall' in funding of around $100 million
per year which needed to be met by industry. After months of negotiation AKRA reached
agreement on the principle that local government rates were the simplest and most
appropriate way to fund recycling programs on an ongoing basis, although agreement was
not unanimous (van Rijswijk, 2000). In early 1998 AKRA finalised the 'Kerbside
Schedule' for the covenant, and industry proposed to spend $5 million to improve the
efficiency of collection systems. At that point, ALGA decided to suspend their association
with AKRA because they felt that industry's offer was well below the required funding
and did not form the basis for meaningful negotiations (Williams, 1998). ANZECC
ministers and officials also regarded the industry's offer as 'derisory' (Williams, 1998).
ANZECC decided to establish a 'high level negotiating group', with a small number of
packaging supply chain CEOs to try to resolve the funding issue. At that stage there were
still different views within the packaging supply chain on the proposed NPC, and product
responsibility more generally. Companies that had been involved in recycling programs in
the past wanted these commitments to be spread more broadly across the packaging chain,
whereas retailers felt that their capabilities and responsibilities were limited to issues such
as plastic bags (NEPC, 1998b). One government negotiator noted that BIEC and PCA
were strong supporters of the covenant but other associations were less enthusiastic:

Most of the other industry associations were extremely wary of it,
because frankly, they hadn't been drawn into it before. The beverage
industry had been paying for most of it; quite a lot of funds had come
out. So the [Australian Food Council and GMA] were very negative
and very defensive to start off. And the retailers association just did

> not want to know about it ... And in fact I think right to the end when it was concluded, the only industry associations that were keen on it were BIEC and PCA. The others went along because they realised that if they didn't, things were going to get really tough for them (Personal communication, State Government D).

A funding compromise was proposed by negotiators from several industry associations and government agencies, but industry-wide agreement had still not been reached on the proposal by the ANZECC deadline of 26 June 1998[79]. This prompted ministers to warn that 'if negotiations on the Covenant are not successfully concluded by 21 August, individual States and Territories will take action to impose their own regulations' (NEPC, 1998a). Industry representatives met on 17 August to reach agreement on a common industry position to be put to the higher level negotiating group on 21 August. The briefing note for the meeting made it clear that a 'politically acceptable' offer of funding had to be made, and that no further extension of time could be expected for further negotiation. At the meeting Alan Williams, then Managing Director of Coles Supermarkets and Chairman of ASI, announced that his company would sign the covenant despite the opposition of Woolworths and ASI staff to the transitional funding mechanism. According to one participant at the meeting, this effectively 'broke the logjam' and agreement was reached that the packaging supply chain would support the covenant and the funding arrangement[80].

Another strong supporter of the covenant was Raphael Geminder, Chairman of Visy Recycling, whose company clearly had much to gain from the NPC:

> He was always there saying, 'You've got Visy's support'. So by Visy going out and leading the charge ... it sort of pulled all of the other packaging guys along (Personal communication, Industry association B).

Some industry associations and their member companies also lobbied government agencies, through the higher level negotiating group, for back-up legislation to prevent companies from 'free-riding'. Packaging manufacturers were particularly concerned to

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[79] The original proposal for a $66 million program was rejected by industry ($33 million by industry and $33 by state and federal governments), who instead offered $5.2 million. The compromise was for a 'Kerbside Transitional Fund' of $34.9 million to be established with joint funding from government and industry, over 3 years. The fund would be used to improve the efficiency of kerbside collection services, but not to subsidise prices for recyclable materials.

[80] The support of the two supermarket chains—Coles and Woolworths—was considered critical to the success of the covenant because of their strong influence in the packaging supply chain.

ensure that brand owners and retailers were involved. To provide for uniform back-up regulations in each of the states, the *National Environment Protection Measure (NEPM) for Used Packaging Materials* was developed by a project team comprising government officials, ALGA and PCA[81]. The NEPM, if enforced, would be a regulated form of EPR. This also proved to be controversial because it focused on brand owners rather than the broader supply chain. The rationale was that brand owners constituted the point in the supply chain with the most freedom of choice and action, and therefore 'product stewardship principles can be realistically pursued' (NEPC, 1998b, p. 103). Brand owners clearly disagreed:

> Suddenly we read the draft NEPM and it has brand owners on it. The
> instinctive reaction from my members was, 'What the hell is going
> on?' There was anger at the packaging people that they had dobbed in
> their customers. So it took a while to work that through ... (Personal
> communication, Industry association B).

In early 1999 ALGA advised ANZECC that they were still unhappy with the draft covenant. They argued that the principle of shared responsibility was flawed, and that industry should pay for kerbside collection costs (Williams, 1999a). They also opposed the covenant because of the lack of performance criteria, inadequate detail on funding, the absence of targets, and doubts about how action plans would be assessed (Williams, 1999c). Despite ALGA's assertion that they would not sign the NPC unless it was renegotiated to meet their concerns, ministers decided to 'press ahead' with finalisation of the covenant and the NEPM (Williams, 1999b).

ENGOs and consumer groups were not involved in the negotiation process at all. Government negotiators decided to exclude ENGOs because this would have hindered negotiations with local government and industry and made an agreement less likely. It was effectively a 'divide and conquer' strategy:

> They were only going to be satisfied with industry paying for the lot.
> And that would have led to no chance at all of getting local
> government in because agreements with local government would have
> formed an effective block with demands of industry that industry
> would never have met ... right up to the end, there was a very good

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[81] The *NEPM for Used Packaging Materials* aimed to regulate brand owners who did not sign the NPC or who failed to meet its minimum requirements. Under the NEPM all participating jurisdictions were required to establish regulations which obliged brand owners to recover their own packaging or to demonstrate that packaging had been recovered on their behalf (NEPC, 1999).

chance that it wouldn't happen, right up to the closing minutes. So if
we'd tried to involve the green groups in it ... we wouldn't have got
the compromise agreement that we eventually got with the Covenant,
imperfect though it was (Personal communication, State Government
D).

The NPC was established for a five-year period (1999–2004) and initially signed on 27
August 1999 by the federal and state governments (excluding the Northern Territory),
MAV, nine industry associations and 14 companies. It stated that the NPC 'is based on the
principle of product stewardship' and that, 'consequent on this principle, all participants in
the packaging chain— raw material suppliers, designers, packaging manufacturers,
packaging users, retailers, consumers, all spheres of government, collection agencies—
accept responsibility for the environmental impacts associated with their sphere of
activity' (ANZECC, 1999, pp. 4-5). It required signatories to submit regular action plans
which outlined what they would do to meet NPC requirements (Table 19) and to submit
annual reports on progress. The actions in Table 19 were presented as a 'menu of options'
in the covenant (BIEC, n.d.) rather than a mandatory list of requirements. Companies were
also required to contribute financially to the Kerbside Transitional Fund. The National
Packaging Covenant Council (NPCC) was formed to oversee the implementation of the
covenant, with representation from the packaging supply chain and all levels of
government.

By 2004 there were 608 signatories, including 569 companies, 17 industry associations,
14 local government associations, the federal government, all state governments and the
Australian Capital Territory Government (Nolan-ITU, 2004, p. 5). The Northern
Territory Government was the only member of EPHC not to join the covenant, and as of
2008 had still refused to do so. Only two of the state-based local government
associations, from Victoria and Queensland, had signed the covenant by 2004, although
South Australia, Western Australia and Tasmanian associations signed NPC Mark II.
Local government associations in New South Wales remained strongly opposed to it.

Table 19: Corporate responsibilities under NPC Mark I

All signatories will 'take action as appropriate in all relevant areas', e.g.:

- design products with a consideration for environmental effects;
- minimise use of material in production;
- reduce material and energy use in distribution;
- design for easy disposal, including reuse, recycling and other forms of recovery;
- undertake environmental research, e.g. on new uses for secondary materials and reducing the amount of packaging;
- develop new markets for secondary materials;
- provide information to help consumers make informed choices;
- provide accurate consumer information and labelling on packaging to encourage appropriate recycling or disposal;
- collect data on packaging and waste;
- educate the community on the value of packaging and the appropriate handling of waste.

The packaging supply chain will also:

- provide financial support to kerbside and other recycling systems;
- encourage use of the Environmental Code of Practice for Packaging (ECoPP).

Source: Based on ANZECC (1999), pp. 5–7

ENGOs were also unhappy with the voluntary nature of the covenant and the fact that it was developed by industry with almost no input from other interest groups:

> It was a coup by business really. In fact I went to a presentation by the EPA of the National Packaging Covenant. I was absolutely astounded that the person who ran the whole show—on EPA property, in their offices, we'd all been invited by the EPA—was the Chairman of the Packaging Council. I immediately thought 'Now, who's driving this?'... It seemed to me that they were just captured by the packaging industry (Personal communication, ENGO C).

Negotiating NPC Mark II (2005–2010)

As discussed in Chapter 2, towards the end of the initial covenant period several evaluations of the NPC were conducted for particular interest groups and they all identified significant problems with its design or implementation (Meinhardt, 2004; Nolan-ITU, 2004; White *et al.*, 2004). To allow more time for a full evaluation of the NPC, EPHC decided, in April 2004, to extend it until April 2005. An initial draft of a

strengthened covenant was released for public consultation in October 2004, but the Boomerang Alliance began lobbying for more substantial changes:

> Local government and environment groups put in quite substantial submissions calling for reforms. It became very apparent that the NPCC wasn't intending to upgrade the rigour and compliance capacity and target content of the NPC, at which point we helped establish the Boomerang Alliance which had more resources and was a more sophisticated campaign compared to the individual environment group campaigns which were currently being run by part-time committees ... (Personal communication, ENGO D).

The Boomerang Alliance (2004) argued that the recommendations of previous reports and the submissions of stakeholders had not been taken into account in drafting the revised NPC, and that the EPHC meeting in December 2004 was a 'last resort' for change (Boomerang Alliance, 2004). The threat was unambiguous: 'The EPHC and NPCC members need to consider that if government and industry ignore our position when we try to work constructively, they send a clear signal that negative campaign tactics and an adversarial approach are still necessary for reform—surely everyone recognises the significant setback this will represent...' (Boomerang Alliance, 2004 p. 8). In particular, they called for: waste reduction and recycling targets; the inclusion of environmental, consumer and ratepayer groups on the NPCC, which they argued was dominated by 'the waste club'[82]; and the introduction of supplementary policy tools such as advance disposal fees. They criticised governments for being complicit in the development of a program which represented avoidance rather than sharing of responsibility by industry (Boomerang Alliance, 2004).

The campaign by the Boomerang Alliance was effective to some extent, because in December 2004 EPHC demanded a number of changes consistent with the ENGO's proposals. In particular, they announced their intention to incorporate targets to measure the achievements of a future covenant, asked officials to negotiate with ENGOs, local government and industry on appropriate targets, and asked the NPCC to appoint a community representative to the Council as a full participating member (EPHC, 2004b). Final targets were still being negotiated between the Boomerang Alliance and government agencies in the final week before the EPHC meeting (July 2005), and the alliance found support from some ministers and government officials: 'We eventually got ourselves into

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[82] This term was taken from an ABC *Four Corners* report (Fullerton, 2003).

a position where we became influential stakeholders ... We started producing, I suppose, sophisticated economic and policy analysis, visited all the key states [and] found some reasonably constructive engagement (Personal communication, ENGO D).

Compromise was reached on final targets[83], which were less than originally advocated by ENGOs, and the revised covenant was approved by the EPHC at their July meeting (NPCC, 2005). In addition to targets, it included, for the first time, a detailed list of performance indicators and more stringent reporting requirements (NPCC, 2005). Like NPC Mark I, it also identified a series of practices that companies in the supply chain could choose to implement as part of their NPC commitments.

Institutional uncertainty: challenges to the NPC

Despite the negotiation of NPC Mark I and its extension for a further five years to 2010, several state governments continued to propose CDL as an alternative or complementary policy mechanism, particularly in South Australia and Western Australia. A review commissioned by the NSW Government (White, 2001c; 2001a; 2001b) concluded that the introduction of CDL would generate positive environmental benefits for NSW. The report noted that consumers would bear the largest cost burden, followed by the beverage industry and retailers, while local government and ratepayers would realise financial benefits due to the reduced costs of kerbside collection. The NSW Government referred the issue to EPHC because of constitutional issues regarding the ability of an individual state or territory to introduce charges such as container deposits, which could be regarded as an excise. This prompted the Victorian, Tasmanian, Australian Capital Territory and Western Australian governments to conduct their own inquiries into CDL[84], and more

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[83] These included: a recycling target of 65% by 2010 (compared to a baseline of 48% in 2003); material specific targets of 78% for paper and cardboard, 50–60% for glass, 60–65% for steel, 70–75% for aluminium, and 30–35% for plastics; a target of no new packaging to landfill compared to 2003; and a recycling rate for 'non-recyclable packaging' of 25% by 2010 (compared to 10% in 2003).

[84] Following the NSW Government's referral of their CDL report to EPHC for consideration, the Victorian Government commissioned studies on the implications of CDL for Victoria (Victorian EPA, 2003). These concluded that CDL would involve substantial increases in costs to consumers and retailers. The Minister for the Environment publicly rejected CDL in 2006 because he claimed that it would undermine Victoria's highly successful kerbside recycling program and cost households around $100 a year (Smart, 2006). The ACT Government also commissioned a study into CDL (C4ES, 2002) after a motion to support the introduction of CDL on a national level received in-principle support from the Legislative Assembly. The study concluded that CDL would

recently the South Australian Government put a proposal to EPHC for a national scheme[85]. More recently the *Drink Container Recycling Bill 2008* was introduced into the Australian Senate by one of the smaller independent parties. It was referred to a Senate committee, and their inquiry recommended that EPHC move to introduce CDL nationally (SCECA, 2008).

The fact that CDL has not yet been extended beyond South Australia, despite numerous government inquiries, can be explained by:

- the federal system of government in Australia, which makes it difficult to introduce national legislation on issues under the jurisdiction of state governments;

- the financial costs associated with CDL, including increased product prices and the need to install new infrastructure;

- the relative power and influence of industry associations on packaging policy, relative to ENGOs and local government.

However, ongoing interest in CDL reflects the dissatisfaction of key stakeholder groups such as local government and ENGOs with industry performance. The Local Government Association of NSW and the Shires Association of NSW continue to advocate an alternative approach which places more responsibility on the packaging supply chain (LGSA, 2006, p. 10). Despite signing the covenant, the MAV has also been critical, arguing that the packaging industry had not taken sufficient responsibility for their products and that more regulation is required (MAV, 2006)[86]. The Boomerang Alliance

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cost too much to implement and would not be as effective as existing kerbside recycling and waste reduction programs (C4ES, 2002). An investigation by the Tasmanian Parliament (Parliament of Tasmania, 2006) recommended that the government introduce CDL subject to its effectiveness and viability being supported by a cost-benefit analysis. The Minister for the Environment in WA announced in November 2005 that her government planned a phased introduction of deposits on packaging to 'strengthen' the NPC (Edwards, 2005). A stakeholder advisory group has been established to investigate options for a deposit system in WA.

[85] In April 2008 EPHC considered a proposal from SA to introduce a national CDL scheme but could not reach agreement. Instead they decided to undertake further research and consider its merits at the same time as the results of the mid-term review of the NPC, in November 2008 (EPHC, 2008a).

[86] MAV argued for stronger enforcement of the NEPM for Used Packaging, whereas the Local Government Association of SA argued for EPR legislation in preference to shared responsibility.

continues to argue that kerbside recycling imposes an 'unfair' cost burden of around $294 million per year on local government, and that this cost should be transferred from ratepayers to industry and consumers through some form of EPR legislation (Boomerang Alliance, 2004). Their rationale is that costs need to be internalised to effectively influence design and consumption decisions, and its members see little benefit from the NPC:

> We've seen no real reduction in the amount of packaging coming into the system and we've seen no real increase in the sort of return rates we get (Personal communication, Local Government B).

> Visibly I can't see a difference. I think the packaging situation is getting worse. There is a greater proliferation of packaging materials out there that have to be coped with ... (Personal communication, ENGO C).

This is a view shared by at least one government official:

> I read with interest [the] report for the Australian Food and Grocery Council in terms of the companies that have made significant changes to packaging. But the problem is, it's not immediately evident when you walk down the supermarket aisle ... I feel that the complexity of packaging has probably increased rather than decreased in that period of time... (Personal communication, State Government G)

Despite the focus of the NPC on broad 'life cycle management' issues, its success or failure is likely to be judged on these two issues—the amount of packaging consumed and recycling rates. Packaging consumption has continued to grow (Figure 12), but is starting to fall per head of population. Data collected for the mid-term review of the NPC is likely to be the most accurate, and this indicates that consumption increased from 4.1 million tonnes in 2003 to 4.3 million tonnes in 2007 (NPCC, 2008c). In per capital terms this represents a fall from 204 kg to 201 kg of packaging per head of population. This has been linked to ongoing efforts by companies in the packaging supply chain to reduce the amount of packaging they use, for both environmental and commercial reasons (Lewis, 2008).

Recycling of packaging has increased significantly. Between 2003 and 2007 the percentage of households in Australia with access to a kerbside recycling service increased from 90% to a minimum of 93% (Hyder Consulting, 2008a). Over the same period the recycling rate increased from 40% to 56% (Table 20). In historical terms this represents a major shift in the waste management of packaging. As already discussed,

recycling programs began in the 1970s for glass and aluminium and were gradually introduced for other materials such as cardboard and plastics. They are now widely available for most forms of rigid packaging.

Figure 12: Packaging consumption per capita in Australia, 1971–2007[87]
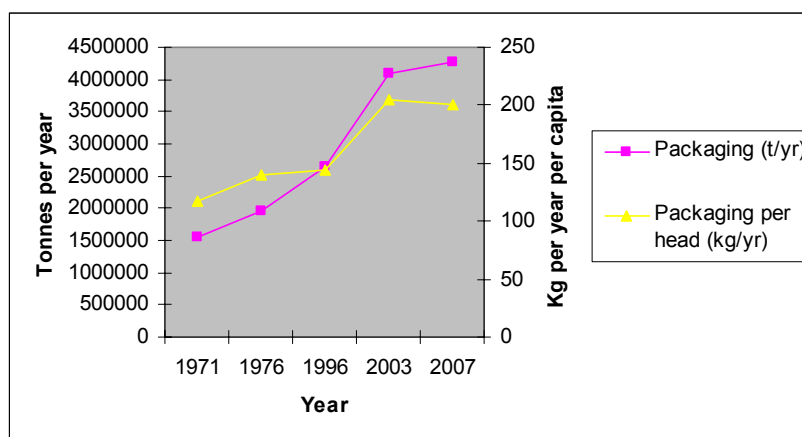
Sources: Packaging consumption data for 1971 and 1976 from the AEC (1979, p. 6); 1996 from NEPC (1998b, p. 42); 2003 and 2007 from the NPCC (2008c); Population data used to calculate per capita consumption is from ABS (2008).

Table 20: Recycling rates for packaging in Australia 1972–2007 (% of consumption)

	1972	1978	1981	1989	1996	2003	2005	2007	NPC targets
Glass containers	17	-	17	24	42	28	34	46	50–60
Paper/ cardboard	-	-	-	51	71	49	57	65	70–80
Aluminium cans	-	18	50	62	65	63	71	70	70–75
Steel cans	-	-	-	-	18	36	38	38	60–65
Plastics packaging	-	-	-	1	-	20	22	31	30–35
Total	**-**	**-**	**-**	**-**	**-**	**40**	**46**	**56**	**65**

Sources: Glass data (1972−1981) from Industry Commission (1991b, p. 55)—do not include bottles which were recovered and refilled; aluminium data (1978-1981) from Industry Commission (1991b, p.4); all 1989 data from Industry Commission (1991a, pp. 25-26)—data are for different periods, both calendar and financial years and intended as a guide only; all 1996 data from Industry Commission (1996, p. 136); 2003–2007 data from NPCC (2008b, p. 2).

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[87] Data between 1971 and 2007 are not continuous and were collected by different organisations using different methods. They should therefore be treated with caution. Data for 2003–2007 are likely to be the most accurate because they has been through a rigorous peer review process over several years (NPCC, 2008b).

The mid-term review of the NPC concluded that the waste and recycling targets for the covenant are all likely to be met by 2010 (Lewis, 2008, p. 3). Infrastructure projects funded by the NPCC, combined with strong demand for recyclable materials in export markets (particularly China), are forecast to increase the recycling rate to around 65%. The NPC target of 'no increase in the amount of packaging disposed to landfill' is also likely to be met given that packaging waste to landfill has been falling consistently since 2003 (Lewis, 2008).

The quality of the data on which these conclusions were based has been questioned by ENGOs, who have argued that they underestimate levels of consumption and significantly overestimate the recycling rate (Cubby, 2008). However, at their November 2008 meeting EPHC decided to ask the NPCC to develop a framework for continuation of the NPC beyond 2010, as well as other options (including complementary policy mechanisms) for consideration in 2009[88]. This decision appears to contradict the recommendation of the Australian Senate inquiry into waste management that EPHC work towards the introduction of a national deposit scheme for packaging (SCECA, 2008). EPHC also decided not to proceed with a phase-out of plastic bags by 2009, instead supporting an expansion of voluntary retailer efforts to reduce consumption and waste[89].

Company characteristics: industry sector and public profile

Corporate responsiveness to PS between 1990 and 2005 was mediated by the same issues which influenced responsiveness in the earlier decades, including:

- the visibility of particular types of packaging in household waste and litter;

- the amount of government and ENGO scrutiny that this packaging attracted;

- the potential risks to companies of not taking action.

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[88] EPHC has not indicated what these 'other options' might be; the four options which were considered most 'promising' in an earlier report to EPHC (MMA and BDA, 2007) were a performance-based advance disposal fee (ADF), a subsidy program for recycling infrastructure, a recycling certificate scheme (tradable rights) and a combined ADF and subsidy program.

[89] Earlier in the year the Institute of Public Affairs had weighed into the debate, claiming that a voluntary retailer levy being trialled in Victoria was likely to be unconstitutional, as well as being a 'tax on working families' and a 'revenue grab' by the Victorian Government (IPA, 2008).

However, the approach taken by industry associations to the regulation of packaging played an even stronger role in mediating responsiveness during this period. LRA was established in the 1970s specifically to avoid state regulation by promoting voluntary corporate responsibility for packaging. Under new names (LRRA, BIEC and Packaging Stewardship Forum) the association continued to be proactive in policy negotiations and in encouraging companies to support voluntary PS initiatives. Between 1991 and 2008 industry associations with much broader roles took different approaches to corporate responsibility and the NPC, and this influenced the PS responsiveness of their members.

The role of industry sector and public profile in mediating corporate responsiveness is illustrated in Figure 13.

Figure 13: Company characteristics mediating responsiveness, 1991–2008

External pressure from stakeholders	**Mediating characteristics**	**Corporate responsiveness**
▪ Threats of regulation ▪ ENGO campaigns ▪ NPC ▪ Pressure from industry associations in other sectors	Industry sector: ▪ visibility of products in the waste and litter stream ○ beverage containers most visible, followed by other rigid food packaging ▪ economic value of recycled materials (business case for recycling) ○ aluminium and glass most recyclable ▪ strategic position of industry associations	▪ Collective industry funding for recycling and litter infrastructure / education ▪ Participation in NPC ▪ Corporate investments in recycling

These factors were all linked to industry sector and the characteristics of packaging. For most of the time between 1970 and 1990, beverage packaging was the most 'visible', in both a literal and a symbolic sense, in household waste and litter. As a result it was the subject of CDL legislation in South Australia and regular threats by other state governments that regulations would be introduced if companies did not take voluntary action to reduce packaging waste. CDL was opposed by industry groups because it had the potential to raise product prices and reduce demand for new packaging materials such as non-refillable glass bottles and aluminium cans. Beverage companies and their packaging

suppliers voluntarily implemented PS programs designed to increase recycling and reduce litter and were actively supported by industry associations such as LRA/BIEC and PIEC/PCA.

During the late 1980s and early 1990s, companies in other sectors also came under ENGO and government scrutiny. One reason for this was that federal and state governments had introduced ambitious waste reduction and recycling policies. Beer and soft drink manufacturers were already supporting kerbside collection programs for glass, aluminium and PET plastics, and government agencies were keen to expand these programs to other types of food and beverage packaging. Officials involved in the negotiation of ANZEC waste reduction plans and similar programs in NSW and Victoria started to involve new players, including other food and beverage sector associations and manufacturers of materials such as non-PET plastics, steel cans and liquidpaperboard cartons. In Victoria there was general agreement about the need to seek greater industry involvement and funding beyond the beverage industry to remove the perceived 'discrimination' against beverage containers. For example, RALAC's (1991) fourth and final report recommended a general packaging levy to fund anti-litter and recycling programs. At the same time ENGOs, such as FOE and the Worldwide Home Environmentalists' Network, were conducting high profile campaigns against products such as the plastic milk bottle and the plastic shopping bag, which once again broadened the debates on beer and soft drink packaging to include other forms of packaging.

The focus was now on all forms of rigid packaging (i.e. excluding film products) which could be included in kerbside collection programs. This move was welcomed by members of BIEC, who were keen to see other sectors provide funding for recycling and anti-litter programs and made this view clear to government negotiators at state and federal levels. As a result, steel and plastic suppliers and a much wider group of packaging manufacturers and brand owners became more engaged in PS activities. Companies in these sectors began to contribute funding to organisations such as KAB, to invest in reprocessing facilities and to promote the recyclability of materials such as liquidpaperboard cartons and HDPE and PVC plastic bottles. The commercial viability of recycling was questionable for these materials, but manufacturers supported it for pragmatic political reasons. The involvement of individual companies, either by providing funding for programs or investing directly in reprocessing facilities, was driven by

industry associations representing these sectors, including PIA, ALC and AFGC. PIA, for example, developed a comprehensive environmental program for the plastics industry entitled *Looking Ahead*, managed by a committee made up of the chief executive officers of major companies (PIA, 1990)[90]. Similar initiatives were under way in the steel packaging industry. In 1988–89 recycling of steel cans from households was negligible (IC, 1991b) but a concerted promotional campaign by the industry during the 1990s[91] boosted recovery rates.

However, with threats of CDL regulations hanging over the industry, companies in the beverage supply chain have always been the most responsive. BIEC members have always believed that there was a real risk of such regulations being introduced if the packaging supply chain did not take sufficient action voluntarily. Therefore they played an active role in policy development and their members were among the first to sign the NPC. AFGC, representing the broader food and beverage industry, has also become more supportive of PS programs and in 2006 took over BIEC's activities under the name of the Packaging Stewardship Forum. As ongoing government investigations into CDL show, regulatory threats need to be taken seriously by the beverage industry. In 2003 the scope of the deposit legislation in South Australia was extended to include not only beer and soft drinks, but also flavoured milk and pure fruit juice, and non-carbonated, soft (non-alcoholic) drinks such as vitamin drinks, sports drinks, iced teas, fruit drinks, and other soft beverages[92].

The NPC represented a particularly positive outcome for the beverage industry and its packaging suppliers because, for the first time, the entire packaging supply chain was covered by the policy. BIEC members had long argued that the focus on beverage

[90] PIA's activities included a research and coordination role in the establishment of kerbside collection and reprocessing facilities for plastic packaging. Programs were also run by interest groups within the plastics industry. For example, the Vinyl Bottle Group was established to facilitate recycling of PVC bottles (Vinyl Council of Australia, 2006).

[91] The Steel Can Recycling Plan was developed in 1991 as a result of BHP's and the Canmakers Institute of Australia's involvement in the state and federal governments' National Kerbside Recycling Taskforce. The plan provided a guaranteed market for all collected cans and a floor price of $40 per tonne (BHP Packaging Products, 2004). In 1996 the Steel Can Recycling Council was established to encourage householders to recycle (http://www.cansmart.org/About/what_is.html, viewed 14 June 2007).

[92] Wine and plain milk remain outside the scope of the legislation, which also specifically exempts pure fruit juice and flavoured milk in containers with a capacity of one litre or greater.

containers was discriminatory and that the issue should be broadened to include all packaging:

> We've carried the weight in supporting kerbside; we made it possible for a lot of other non-beverage companies to make use of kerbside at no cost to themselves. In driving the *Do the Right Thing* campaign we significantly improved litter outcomes ... So we believe we've done more than pull our own weight ... (Personal communication, Company E).

The interests of the beverage industry in a successful system of self-regulation meant that they were not as critical of the role played by ENGOs in the negotiation of NPC Mark II as other associations. One beverage industry representative commented that the Boomerang Alliance played a positive role in keeping state and federal government ministers focused on an issue which they regarded as relatively unimportant:

> We could see that—this is a personal view—we would enter another covenant ... which would probably be barely if any more effective than the first, and we would almost guarantee major government intervention, probably with a different government in Canberra, by 2010. And that would not be in the community's interest, in my view, or in the government's interest ... So the beverage industry was very much in favour of continuous improvement ... What the Boomerang Alliance has done is make the process much more honest (Personal communication, Company E).

Retailers have always been the least committed to PS in general and the NPC in particular. The Australian Supermarket Institute was initially strongly opposed to the funding arrangements and back-up regulations. ASI no longer exists, and other associations such as the Australian Retailers Association (ARA) have not signed NPC Mark II.

This historical analysis of packaging policy debates and industry responsiveness suggests that PS was first institutionalised in companies with a direct interest in the manufacture of beer and soft drinks, including brand owners and packaging suppliers, and these companies both influenced policy outcomes and assumed a certain amount of responsibility for the life cycle impacts of packaging. The next group to become involved included manufacturers of other beverages such as milk and fruit juices and their packaging suppliers, followed by food manufacturers, other brand owners and, to a lesser extent, retailers. The focus had shifted from a relatively small group of companies to the entire packaging supply chain:

If I think back in history, to around 10 to 15 years ago, the whole focus was, 'You're a packaging manufacturer, you're bad', and there was no real focus on the brand owners at all. And when you think back to the first round of the covenant, I remember the brand owners kicking up a huge stink because they'd been brought into the debate. That's where we've seen a massive shift (Personal communication, Company B2).

Conclusion

This chapter investigated the institutionalisation of PS at a macro (socio-political) level by exploring the role of interest groups, discourses, public policy processes and corporate characteristics in shaping stakeholder expectations and corporate responsiveness.

The institutionalisation of PS through packaging discourses and policy processes can be explained by the relative power and influence of business interests and a deregulatory approach to environmental policy within government. Two policy coalitions—based on shared interests, policy beliefs and story-lines—emerged during the 1970s and have remained relatively stable since that time. The 'self-regulation coalition', led by industry associations, convinced most state governments in the late 1970s and 1980s to support a voluntary approach to corporate responsibility for packaging. Story-lines that were used to support this position focused on the social and economic benefits of packaging, the insignificance of post-consumer waste compared to other issues in the packaging life cycle, the need for behavioural change rather than regulation to address litter, kerbside recycling rather than deposits as the most effective solution to waste, and 'shared responsibility' rather than producer responsibility for waste. State-based agreements between government agencies and industry associations linked to the beverage industry were eventually replaced by a national approach, the NPC. The 'state regulation coalition', led by ENGOs and supported by some local government associations, has consistently argued that packaging is environmentally damaging and should be regulated by the state.

While conservative governments have tended to be more sympathetic to business interests than Labor governments have, both sides of politics have been reluctant to impose new regulations on industry. A notable exception is the Labor government in South Australia, which broadened the scope of its deposit legislation in 2003; and in 2008 increased the size of the deposit and announced a ban on plastic shopping bags. In 2008 Labor

governments were in power nationally and in all states except Western Australia, but the EPHC changed its position on plastic bags to support a continuation of voluntary efforts in the retail industry to reduce plastic bags rather than the national phase-out (to be achieved through levies and bans) that previously had been announced. The EPHC also indicated that it was likely to support a continuation of the NPC beyond 2010, despite further demands from ENGOs and other stakeholders for increased regulation.

These developments reinforce the fact that PS is increasingly taken for granted as the principle which underpins corporate responsibility for packaging. Its institutionalisation has shifted the focus of corporate responsibility away from post-consumer waste—the target of ENGO demands for container deposit legislation—and towards the 'life cycle management' of packaging. Under the NPC companies have considerable flexibility in choosing how they implement PS, which means that they can respond by addressing environmental impacts which are directly or indirectly under their control, such as production waste and supply chain impacts. Many companies, particularly in the beverage industry supply chain, have also been involved directly in kerbside recycling and anti-litter programs for many decades.

The analysis of PS at a macro level in this chapter has revealed that the responsiveness of companies is linked to industry sector (product visibility and the economic value of recycled materials) and the strategic role played by industry associations in promoting self-regulation. Associations representing the beverage and beverage packaging sectors have been more proactive than others in promoting a new form of 'industry morality' (Gunningham and Rees, 1997) in the way that companies manage the environmental impacts of packaging. In McEarchern's (1991) typology they were 'accommodationists' in the sense that they attempted to accommodate the environmental concerns of ENGOs and other stakeholders by introducing PS policies and practices. This is because they wanted to manage the risks associated with the potential introduction of a national container deposit scheme by implementing voluntary PS programs. The most recent proposal for a national CDL system, by the Family First party in 2008, and the subsequent support that this proposal received from the Senate inquiry into waste management, demonstrate that the threat of legislation is unlikely to go away. ENGOs and some local government associations are not satisfied with the environmental outcomes of the NPC and continue to lobby governments for increased regulation. If one of the criteria for the

successful implementation of a voluntary environmental agreement is the acceptability of the policy to different stakeholders (Sullivan, 2005) then it has not succeeded. Similarly, if companies have a social obligation or an interest in meeting the expectations of key stakeholder groups, as CSR and stakeholder theories suggest, then it is clear that to date the packaging supply chain has failed to achieve this.

Corporate responsiveness and performance at an industry level will now be examined in closer detail in the next chapter.

Chapter 5

Institutionalising product stewardship in the packaging supply chain

Chapter 4 concluded that product stewardship has been established as a new framework for the environmental management of packaging in Australia. This has occurred as a result of discursive and policy processes involving groups with competing interests and policy beliefs. The principle of PS has been institutionalised in public policy through a co-regulatory approach which includes the 'voluntary' NPC and regulatory back-up provided by state government jurisdictions.

This chapter aims to investigate the institutionalisation of PS at a meso level (the packaging supply chain) by asking the question: *How and to what extent is product stewardship being institutionalised by companies in different sectors of the packaging supply chain, particularly raw material suppliers, packaging manufacturers, brand owners and retailers?* There are two major challenges involved in doing this. First, there is no clear 'blueprint for action' which can provide the basis for such an evaluation. The NPC was deliberately designed to be a flexible policy tool which would allow companies the freedom to choose how and when they would respond. Its objectives and commitments were written in very general terms which make it difficult to evaluate performance. Second, the PS discourse which underpins the NPC has been rejected by many local government associations and ENGOs, who still expect companies to take greater responsibility for post-consumer waste management impacts.

In an attempt to overcome these problems, a new PS evaluation framework is developed here and builds on models of corporate social performance and responsiveness from the CSR literature (particularly Carroll, 1979; Labatt, 1991; Wood, 1991). However, the responsiveness framework is enriched by examining the role and influence of different stakeholder groups and the extent to which social expectations are reflected in language as well as policy and practice. First, the various industry sectors which make up the packaging supply chain are analysed to identify their role and likely involvement in PS activities. The perceived influence of supply chain partners and other external stakeholders on corporate responsiveness is also discussed. Second, the environmental

rhetoric used by these companies in their public reports is examined to ascertain the extent to which companies have publicly adopted the language of PS and 'shared responsibility'. Third, a list of corporate PS policies and practices is identified and used to evaluate the responsiveness of 30 companies in the packaging supply chain. This list is based on public policy (the NPC), the expectations of stakeholder groups and standards of industry 'best practice', which together help to define the PS institution. The evaluation is confined to the stated policies and practices of these 30 companies between 1999 and 2005—the period of operation of NPC Mark I. Finally, corporate responsiveness is compared across different industry sectors.

Interest groups: the organisational field at a meso level

The responsiveness of companies to PS is likely to be influenced by their common and competing interests as well as power in the packaging supply chain. Companies in the raw materials, packaging, product manufacturing and retail sectors operate very different businesses, but they have at least two common interests relevant to this research:

- They all have an *economic* interest in the value that packaging delivers in the supply chain.

- They all have a *political* interest in meeting the PS expectations of their stakeholders in order to avoid more restrictive regulation.

While the case study companies are classified throughout this chapter as either raw material suppliers, packaging suppliers, brand owners or retailers (Figure 14), some have activities which cut across these categories. For example, most of the retailers are also brand owners because they sell products under their own brand. Similarly, Carter Holt Harvey, Amcor and Visy can be described as both raw material suppliers and packaging suppliers because they are vertically integrated companies which combine forestry and recycling operations with the manufacture of pulp, paper and packaging. Industry associations which represent companies in these sectors are also shown in Figure 14, and more detail is provided in Table 21. As Bell (1992) observed, industry associations in Australia tend to be fragmented. There is no one association which can claim to represent all packaging interests because of the diversity of companies involved in its manufacture, use and retail sale.

Figure 14: Sectors and industry associations in the packaging supply chain
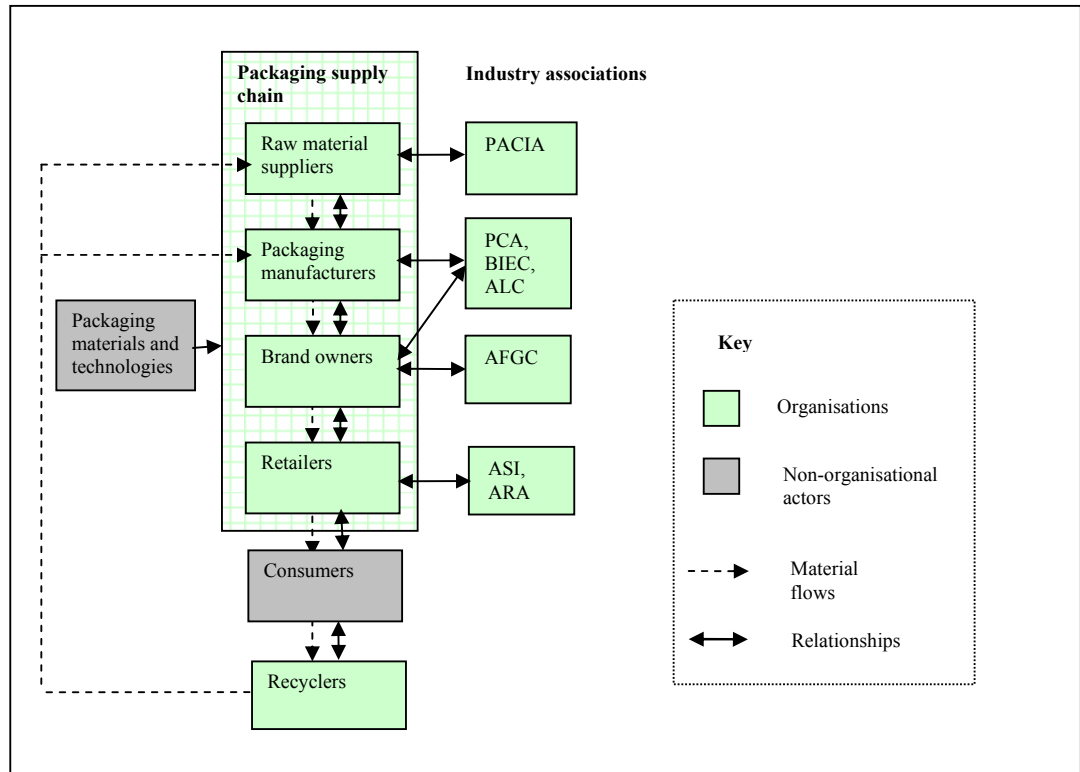
Table 21: Industry associations representing packaging supply chain companies

Industry association	Membership	Activities
Australian Industry Group (AIG)	60,000 businesses in manufacturing, transport, construction etc	Policy development, advocacy and education, training, events
Australian Food and Grocery Council (AFGC)	150 members in the consumer food, beverage and grocery sectors (80% of industry turnover) (AFGC, 2008b)	Policy development, advocacy and education, hosted the Packaging Stewardship Forum since 2006
Australian National Retailers Association (ANRA)	By invitation only—Coles, Woolworths, David Jones, Bunnings, Best & Less, The Just Group, Harvey Norman, Franklins, Borders (ANRA, 2008a)	Research and advocacy on national policy issues (from 2005)
Australian Retailers Association (ARA)	5000 retail members from a range of sectors (ARA, 2008)	Policy development, advocacy and education; training, awards, events
Australian Supermarket Institute (ASI)	National supermarket chains and wholesalers including Coles, Woolworths and independents	Research and advocacy on national policy issues (until 2000)
Association of Liquidpaperboard Carton Manufacturers (ALC)	Two packaging manufacturers—Southcorp Packaging and Tetra Pak	Research and advocacy on waste and recycling issues (1989–2006)
Beverage Industry Environment Council (BIEC)	Packaging, food and beverage companies. Became a 'forum' within AFGC in 2006 (Product Stewardship Forum, PSF)	Policy development, advocacy and education, funding of recycling and litter programs
National Packaging Council Industry Association (NPCIA)	Associations involved in the NPC: PCA, AFGC, PSF, AIG, ARA and PACIA	Coordinating industry funding for the NPC, administering funds for NPC projects, managing the Environmental Code of Practice for Packaging (ECoPP)
National Retailers Association (NRA)	3,700 retail members from a range of sectors (NRA, 2009). NRA formed in 2005	Policy development, advocacy and education, training; events; awards
National Association of Retail Grocers of Australia (NARGA)	Associations of independent grocery retailers in each State—represent around 4,500 independent retailers (NARGA, 2007)	Policy development, advocacy and education
Packaging Council of Australia (PCA)	100 members from the packaging supply chain, including material suppliers, packaging manufacturers, packaging users, and retailers (PCA, 2005, p. 5)	Policy development, advocacy and education, industry and student awards; schools education program, events
Plastics and Chemicals Industries Association (PACIA)	Importers, raw material suppliers and chemical manufacturers, plastics fabricators, recyclers and service providers	Policy development, advocacy and education, delivery of environmental programs, industry awards
Steel Can Recycling Council	Bluescope Steel (raw material supplier) and can manufacturers	Established to promote recycling of steel cans (until 2007)

The break-down of NPC signatories in 2003 provides an indication of the size and structure of the industry. The combined signatories had an annual turnover of approximately $150 billion, with wholesale/retail being the biggest sector ($77 billion) followed by brand owners ($59 billion), packaging or paper suppliers ($12 billion) and raw material suppliers ($1.5 billion) (Nolan-ITU, 2004, p. 6)[93]. The industry is characterised by a small number of very large companies and a large number of small-to-medium size companies. A comparison between the number of signatories and the estimated size of the industry is provided in Table 22. Given that the NEPM specifically targets brand owners, it is not surprising that most brand owners joined the covenant. The retail sector was the only one significantly underrepresented in terms of industry size, although all of the major retailers had joined. According to Nolan-ITU (2004), all of the relevant raw material suppliers were also signatories.

Table 22: Comparison between NPC industry signatories and industry size, 2003

	Industry signatories, number and percentage (%)				
	Raw material suppliers	**Packaging and paper suppliers**	**Packaging users / brand owners**	**Wholesaler / retailer**	**Total**
Actual signatories[1]	19 (3.5%)	84 (15.6%)	344 (63.8%)	93 (17.2%)	540 (100%)
Estimate of industry size[2]	71 (11.6%)	43 (7.0%)	366 (59.6%)	134 (21.8%)	614 (100%)

Sources:
1. Signatories as at October 2003 are from(cited in Nolan-ITU, 2004, p. 7).
2. These estimates were prepared by PricewaterhouseCoopers in a 1999 report entitled *An industry funding mechanism for the transitional arrangements associated with the National Packaging Covenant* (cited in Nolan-ITU, 2004, p. 7).

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[93] More recent data on the breakdown of signatories by turnover are not available.

The distribution of NPC industry signatories by sector has changed since 2003, with the percentage of brand owner signatories increasing from 64% in 2003 to 80% in 2008 (Figure 15).

Figure 15: Percentage of NPC signatories by sector, 2003 and 2008
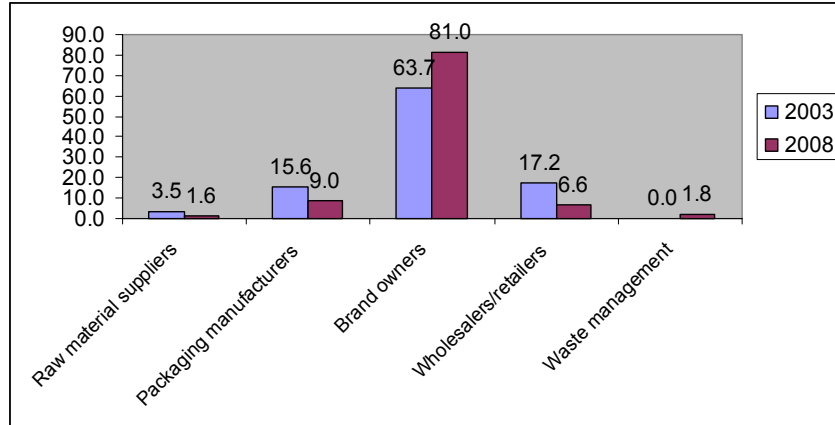
Source: 2003 data based on Nolan-ITU (2004, p. 7); 2008 data based on NPCC (2008a, p. 2).

Some of the structural and commercial issues for each industry sector, including the potential costs of CDL and membership of industry associations, are briefly discussed below. Chapter 4 identified CDL as one of the key drivers of industry responsiveness, but if introduced nationally its economic impacts would be higher for some sectors than for others.

Packaging raw material suppliers

Packaging raw material suppliers are companies which sell metals, plastics, paper, cardboard and other basic components to packaging manufacturers. There were only 19 NPC signatories from this sector in 2003, reflecting the small size of the materials manufacturing sector in Australia following many years of consolidation. The largest liquidpaperboard, cardboard and glass packaging manufacturers are vertically integrated, i.e. the same companies manufacture both basic materials and finished packaging. A significant amount of packaging material is now imported, particularly plastics and tinplate steel.

Under the NPC, raw material suppliers have a responsibility to manage the environmental impacts of their supply chain, production processes and the end-of-life impacts of their products. While they are not directly involved in packaging design and production, many of the larger raw material suppliers have worked closely with customers and local government to establish recycling programs for their materials. In some cases this has been through special interest associations such as the Steel Can Recycling Council. Bluescope Steel was a key member until it stopped manufacturing tinplate steel in Australia, and the council ceased operating[94]. PACIA, representing suppliers of plastics to packaging manufacturers, has played an important role in coordinating groups to undertake PS projects[95].

If CDL were to be extended beyond South Australia, suppliers of raw materials for beverage packaging would only be affected if the handling fee, in the form of a unit fee per container[96], was passed on to customers and resulted in a fall in demand. The deposit itself might also reduce demand if the customer is unwilling or unable to return the container and redeem the deposit and therefore pays a price premium.

Packaging manufacturers

There were 84 NPC signatories from this sector in 2003. However, the dominant two packaging suppliers, Visy Industries and Amcor Australasia, have significant market power in some product segments. For example, Visy and Amcor controlled 97% of the Australian cardboard market in 2004, and were recently investigated by the Australian Securities and Investment Commission (ASIC) for cartel behaviour including price-

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[94] Bluescope Steel was the only local manufacturer of tinplate steel. They ceased production and recycling of this material in Australia in March 2007 because of a decline in the local market for steel cans.

[95] Two supply chain groups were established to undertake NPC-funded projects: one to investigate recycling of polypropylene (Polysearch, 2005); the other to investigate recycling of polystyrene.

[96] According to White *et al.* (2001b, pp. 156–57), most CDL schemes involve a handling fee, which is paid by beverage manufacturers to either retailers or depot operators to run the collection system. This fee is either absorbed by the manufacturer, resulting in less profit, or passed on to consumers. If it is passed on to consumers it may reduce demand for the product, which reduces the profit of both the manufacturer and the retailer.

fixing[97]. While companies such as this may have significant market power to influence both price and design of packaging in some product categories, the design of packaging is undertaken as a collaborative process between the packaging manufacturer and their customer, i.e. the product manufacturer (Francis, 2004). Through this process they can provide options to reduce environmental impacts, for example by providing packaging which uses less material or which is more recyclable. Some of the larger packaging manufacturers have also worked with both raw material suppliers and brand owners to establish recycling and litter-control programs for their products.

PCA is the only industry association with a specific focus on packaging, but packaging manufacturers are also likely to be members of other associations such as AIG and PACIA. In the past they have also participated in special interest groups such as ALC and the Steel Can Recycling Council.

Under an extended CDL scheme, manufacturers of beverage packaging would be affected if unredeemed deposits and handling fees increase the price paid by consumers.

Brand owners

Packaging suppliers manufacture or import packaging for brand owners and 'contract fillers' who use it for food, beverages and many other products. The food and beverage sectors consume approximately 65–70% of packaging in Australia (Frost, 2005). The industry is dominated by a number of large TNCs such as Nestlé (Switzerland), George Weston Foods (UK) and Cadbury Schweppes (UK). In recent decades the food and beverage sectors have been characterised by increasing concentration as well as a shift in ownership from Australian to overseas interests[98]. Brand owners in many other industry sectors also use packaging to contain, distribute and market their products, including companies in the appliance, consumer electronics, household chemicals, furniture, and building products sectors.

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[97] In November 2007, Visy Board and its director and owner, Richard Pratt, were fined $36 million by the Federal Court for engaging in 'price-fixing and market-sharing contraventions of the Trade Practices Act 1974 with its rival, Amcor Limited' (ACCC, 2007). Amcor had been given immunity from prosecution after approaching the ACCC with information about the cartel in 2005.

[98] For example, the Australian soft-drink industry has been transformed from around 600 unincorporated businesses in the 1950s to the current duopoly of Coca Cola Amatil and PepsiCo (McQueen, 2000).

For brand owners, packaging is an integral part of the product they sell to consumers. They have an interest in ensuring that it effectively contains and protects the product throughout the supply chain, and that it 'sells' the product to consumers through its strong shelf presence and product information. The brand owner ultimately controls the design of a product and its packaging through their marketing and procurement decisions, and therefore has a significant influence on the environmental impacts of packaging.

A CDL scheme would impose a number of costs on beverage manufacturers. According to White (2001b, pp. 157-8) their profit would be reduced if they chose to absorb the costs of the handling fee or if the cost is passed on to consumers and this reduces sales. The elasticity of demand is likely to be higher for beer and soft drinks than for other beverages such as milk. They would also need to absorb the initial cost of changing product labels to advise consumers about the deposit (White, 2001b, p. 127). This explains why beverage brand owners have been actively involved in associations such as BIEC, which promoted voluntary responsibility rather than CDL. Other brand owners in the food and beverage industry are now involved in PS initiatives through AFGC and PCA.

Retailers

While there were 93 signatories to the NPC from the retail/wholesale sector in 2003, the industry is dominated by a few large firms including Coles Group (previously Coles Myer), Woolworths, Metcash and Bunnings. Coles and Woolworths control around 77% of the grocery market in Australia and suppliers have to meet sales targets and keep prices down in order to retain shelf space (Quinn, 2004). Brand owners have often complained that the retailers use their power unfairly by forcing wholesale prices down and demanding a contribution to in-store marketing costs (Quinn, 2004). The liquor retailing sector has been used as an example of the 'assertiveness' of Woolworths and Coles in the market (Jones, 2005) and Woolworths was found guilty by the ACCC in 2006 of 'bullying' smaller rivals in the liquor retailing sector (Carson, 2006).

Both Coles and Woolworths are using similar supply chain strategies to minimise retail prices, for example by increasing their range of 'own-brands'. This strategy has been described as 'a naked attempt to transfer profit margin from manufacturers to the retailer while offering little or nothing in return' (Porter, 2005, p. 4) and an example of the fact

that 'the two Grocery Gods are making the rules' (Maiden, 2005, p. 1). It may also have implications for the ability of local brand owners and packaging suppliers to invest in environmentally innovative packaging which would meet their obligations under the NPC. For example, retailers are demanding that brand owners reduce the number of items delivered in each box, a trend known as 'down counting', and deliver some products in 'shelf-ready' packaging. Both of these trends involve more packaging material, but suppliers have no choice but to comply. As one interviewee noted, '...if you're not willing to go down that track then you're not going to be a supplier ... In a lot of ways that's not the ideal in terms of what we were trying to achieve [with our NPC action plan] (Personal communication, Company G). Strategies such as these are designed to drive down supply chain costs and improve competitiveness through changes in 'secondary' (transport) packaging, but are likely to increase rather than decrease the total amount of packaging.

The ability of retailers to influence the design of 'primary' (consumer) packaging depends on their market power and the product category. For example, the ability and willingness of Wal-Mart to drive down retail prices in the US through strategies such as reduced packaging has been well documented (Fishman, 2006)[99]. Retailers have total control over their 'own brand' products, which are increasing as a proportion of all products in the supermarket. As brand owners, retailers that do not meet the requirements of the NPC for these products will be regulated under the NEPM. However, their influence over packaging used for other branded products will depend on the balance of power in each product category. According to one interviewee (Company G), the retailer has limited ability to influence a brand owner if that supplier accounts for a high proportion of sales in a particular category and is unwilling to change their packaging. They potentially have a lot of influence if there are several different suppliers in a competitive product category. In the latter case, packaging is one aspect of the product that suppliers can use for competitive advantage, for example by developing environmentally preferred packaging which meets the retailer's PS expectations.

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[99] For example, in the early 1990s Wal-Mart and other retailers decided that the paperboard box around roll-on deodorant was a waste of money and material. Fishman (2006, p. 1) has reported that '[w]ith the kind of quiet but irresistible force that Wal-Mart can apply, the retailer asked deodorant makers to eliminate the box'. More recently Wal-Mart announced a plan to reduce packaging by 5% by 2013, with an estimated saving of $US4.5 billion, by eliminating or reducing packaging components. They have developed a 'packaging scorecard' which it can use to assess the environmental performance of suppliers (Wal-Mart, 2006).

As shown above in Table 21, a number of associations represent the retail sector. The large supermarkets (Coles and Woolworths) were originally involved with the independent supermarkets in ASI, but have since established a new association—ANRA—with other national retailers. ASI folded after Coles Myer decided to leave the association, in part due to differences of opinion about the participation of retailers in the NPC.

Retailers would be affected by the introduction of CDL in a number of ways. As beverage brand owners and retailers they may experience reduced sales due to an increase in prices, but depending on the design of the scheme they may also be required to implement 'point of sale' return systems or drop-off depots in their car parks. The costs associated with these include labour, storage space and pest control (White, 2001b, pp. 159–161).

Packaging discourses: industry commitments to product stewardship

The language used by companies and industry associations to describe their general policy or approach to PS is a useful starting point for the evaluation of responsiveness, particularly within the context of the public discourses on packaging and corporate responsibility discussed in Chapter 4. The public reports of the 30 case studies were therefore checked for statements which indicate their approach to corporate responsibility for packaging (Appendix 4). The framing of PS in business terms is discussed further in Chapter 6, but this section reviews some of the differences between industry sectors in the language used to talk about corporate commitments and policies.

None of the companies mentioned 'extended producer responsibility' in their public statements to stakeholders, confirming the conclusion in Chapter 4 that this language is confined to ENGOs and some local government agencies. Over two-thirds of the companies explicitly mention a commitment to PS or related terms such as 'life cycle management' and 'shared responsibility'. These companies talk about the total life cycle of their products including waste at end-of-life, and often mention the importance of collaboration with suppliers, customers and other stakeholders. Their language mirrors the NPC's interpretation of product responsibility, i.e. that responsibility is shared with others and that companies are mainly responsible for impacts within their 'sphere of influence'.

A strong commitment to the NPC and the principle of PS is particularly evident in statements by packaging manufacturers and some of the largest beverage brand owners, for example:

> The Foster's Group Action Plan report addresses those 'upstream' and internal elements of the Covenant that are under Foster's Group's direct control and influence (Foster's Group, 2005, p. 1).

> Amcor recognises that its packaging products have an impact on the environment in a number of ways ... However, whilst the correct disposal of packaging is the responsibility of the end user, we must acknowledge that we can assist in minimising the impact of packaging waste by encouraging the recycling of our products and working with other stakeholders to facilitate recycling of packaging (Amcor, 2005, p. 18, emphasis added).

This is consistent with the active role played by some of the industry associations representing packaging, food and beverage industry interests during the negotiation of the NPC, particularly PCA and BIEC. PCA strongly supported and promoted the NPC. For example, they published the action plans and reports of all signatories to NPC Mark I on their website until 2006. After NPC Mark I was signed, BIEC continued to fund litter and recycling initiatives and promote the NPC to its members:

> BIEC has consistently encouraged each member company to submit Action Plans for On-Site Operations in accordance with the Environmental Code of Practice for Packaging (the Code). BIEC continues to actively seek wider recognition and implementation by member companies of the Code (BIEC, 2004, p. 1).

When asked about the role of industry associations in managing 'end-of-life' environmental impacts of packaging, one company stressed the important role played by BIEC:

> I think we probably do tend to rely on the industry associations to a large extent on that ... BIEC was engaged with the whole *Don't Waste Australia* and *Do the Right Thing* campaigns, so the industry including [this company] and brand owners have put a lot of resources into that, but not on an individual basis, it has been done on an industry level (Personal communication, Company B1).

BIEC was subsumed within AFGC as the 'Packaging Stewardship Forum' in 2006. Before that, AFGC had also been involved in litter management in its own right through the establishment of a litter management committee. Their website describes their approach:

> The Packaging Stewardship Forum (PSF) works with partners across
> Australia to increase the resource recovery of food and beverage post-
> consumer packaging and reduce littering ... The forum continues to
> deliver a range of programs established over the past three decades by
> its predecessors, the former Beverage Industry Environment Council
> (BIEC) and the Litter Recycling and Research Association. It also
> advocates and promotes new ways of approaching the management of
> post consumer food and beverage packaging and its recovery (AFGC,
> 2008a).

AFGC's website also promotes the *Do the Right Thing* anti-litter campaign and provides
information on resource recovery projects being undertaken on behalf of PSF members
(AFGC, 2008a).

While most of the companies mentioned above are involved in the manufacture of
packaging, food or beverages, another group of companies with a strong rhetorical
commitment to PS can be identified. Two of the case study companies are in the chemical
industry and are signatories to Responsible Care, which means that they have a
commitment to the chemical industry's Product Stewardship Code of Practice, which pre-
dates the NPC. Consistent with the history and purpose of the code, these companies
emphasise risk management and product safety. Dulux, a division of chemicals
manufacturer Orica, has a clear PS standard which forms part of their Safety, Health and
Environment (SHE) system:

> All Orica controlled businesses shall ensure that they manage, in an
> ethical and responsible manner, all the safety, health and
> environmental aspects of a product from its initial conception to its
> ultimate use and disposal. The SH&E implications shall be taken into
> account prior to the launch of new products and in the selection and
> development of new processes. The hazards from new products and
> processes, and the consequent risks, shall be reduced so far as is
> reasonably practicable to reduce potential SH&E impacts (Orica,
> 2004b).

Another Responsible Care signatory, plastics manufacturer Qenos, stated in their first
NPC action plan that 'we have a longstanding commitment to product stewardship and
demonstrated performance in environmentally responsible activities—including
foundational involvement in HDPE milk bottle recycling in Australia' (Qenos, 2001, p. 3)
and 'we embrace the principles of Product Stewardship and Shared Responsibility
throughout the packaging chain' (p. 5). The language in their SHE policy is more closely
linked to Responsible Care, including commitments to 'minimise risks associated with the

manufacturing, transportation, use and disposal of our products' and to 'efficiently use materials and energy, and dispose of wastes in a safe and environmentally sound way' (Qenos, 2000). Like Orica, they emphasise safety and risk management.

Orica and Qenos are both members of PACIA, which played an active role in the negotiation of the covenant and has continued to promote PS and the NPC to its members. In an industry trade journal their General Manager argued that:

> The covenant is the only approach that truly recognises the diversity of materials in the waste stream, the complexity of the supply chain, and the sharing of responsibility between industry, government and the community. This is why PACIA, along with many other industry associations representing the consumer industry supply chain, have worked hard to have the Covenant accepted by government (Swann, 1999, p. 44).

The PACIA spokesman went on to warn that 'if the covenant is not supported by all of industry, it will not be a success. This is the best opportunity for industry to directly shape the most appropriate waste management actions for each signatory' (Swann, 1999, p. 44). The association's website continues to promote PS and the NPC, for example with the statement that 'PACIA is a strong supporter of the National Packaging Covenant ... This model provides the opportunity to create and communicate real improvements to the total life cycle of consumer packaging... (PACIA, n.d.). The website also lists numerous projects being managed by PACIA to support the covenant, including data collection and a research and development project to improve the recyclability of rigid plastics packaging, and provides links to other resources for members.

Some retailers have used the language of PS in their reports but with a more limited interpretation of its meaning. For example, Coles Myer stated that it has 'embarked on responsible stewardship of all its waste streams by adopting the waste management hierarchy of avoidance, reuse, recycling, energy recovery and disposal' (Coles Myer Limited, 2005, p. 15), but this seems to express a commitment to the stewardship of 'waste streams' rather than products over their total life cycle. Woolworths went further by acknowledging that, while signing the NPC was a 'significant step' for the company, they accept the concept of PS: 'Through our ongoing objective of reduction in packaging and plastic bag litter, Woolworths will pursue a "life cycle" approach to the management of packaging waste, including the reduction in the use of plastic checkout bags'

(Woolworths, 2005, p. 28). However, this statement implies that the focus is on checkout bags rather than 'own brand' products or the many other packaged products in their stores.

The emphasis on 'in-house' impacts rather than the total life cycle of packaging is also clear in the following comment by an interviewee from the retail sector:

> I think if I had a pure retailer hat on I'd say [our responsibility] starts at the back door and stops at the front door. Which is the attitude that evolved over the years: we don't manufacture the product, and we don't use the product, so our responsibility is here within our organisation and that's where we have to concentrate ... The exception was a product we owned—house brand products. For everything else, the responsibility sat with the manufacturer (Personal communication, Company G).

The language used by the retailers reflects the more limited interpretation of corporate responsibility for packaging advocated by the ASI during the negotiation of NPC Mark I. ASI was disbanded soon after the covenant was signed, although other associations, including ANRA, ARA, NRA and NARGA now represent the general interests of retailers. These associations have not played an active role in promoting the NPC to their members and there is little, if any, information provided on their websites about the NPC. However, they all include information on voluntary waste reduction initiatives (and regulatory proposals) for plastic shopping bags, which appears to be their main focus. In 2002 ARA developed a voluntary code of practice to reduce the use of plastic shopping bags in supermarkets and the organisation continues to promote voluntary implementation of the code in preference to a regulated phase-out:

> The ARA recognises the potential harm that plastic bags can cause when littered. The ARA supports the reduction of unnecessary packaging and reusing of necessary packaging ... As representatives of both small and large businesses, the ARA will continue to work alongside other not-for-profit organisations such as Clean Up Australia in assisting retailers in reducing, reusing and recycling plastic bags through behavioural change campaigns (ARA, 2006, p. 7).

ANRA undertook a voluntary trial in 2008, in conjunction with the Victorian Government, to impose a levy on single-use bags (ANRA, 2008b). The association has also expressed support for the principles of life cycle management and shared responsibility for products and packaging, although with a preference for voluntary initiatives over regulation (ANRA, 2006).

NARGA represents the smaller independent grocery retailers. Its CEO, Ken Henrick, was Assistant Director of ASI during the negotiation of NPC Mark I, and originally resisted government and industry attempts to include supermarkets within its scope. ASI later opposed the NEPM for Used Packaging, and Henrick's views on this are revealed in these comments from NARGA's website:

> The NEPM for used packaging materials was drafted as a so-called 'safety net' at the specific request of some large companies, mainly packaging manufacturers and a few grocery manufacturers, which claimed that if they signed up to the Covenant they might be disadvantaged in competition with non-signatories. How that could be I am not sure (Henrick, 2001b).

Henrick commented that companies need to choose whether or not to join the covenant but did not explicitly encourage them to do so. He also implied that the NPC represents 'business-as-usual' for most companies:

> By signing, a company commits to review its own packaging, to ask their suppliers to do the same, to seek continuous improvement in terms of minimising packaging, ensuring its recyclability and encouraging the development of markets for recycled packaging materials ... Nobody could argue with the principles behind those ideas. Most companies would do it as a matter of course to ensure they are not wasting money in relation to their competitors' packaging (Henrick, 2001b).

NARGA is strongly opposed to environmental regulation of any kind and does not appear to acknowledge that packaging represents an environmental problem. This view was evident in NARGA's response to the Productivity Commission's draft report on Waste Management and Resource Efficiency:

> [The association] fully supports the Commission's findings ... especially the recommendation relating to the need to base waste policy on consideration of economic efficiency as a means of capturing the combination of resource and capital efficiency in ways that optimise community benefit. Such an approach would prevent policy decisions being based on a single 'excuse' such as 'sustainability' (narrowly defined), 'the waste hierarchy' ... and the wide range of simplistic justifications used for current waste management policy approaches (NARGA, 2006, p. 2).

In relation to packaging policy, NARGA sought an 'urgent review of both the plastic shopping bag reduction/elimination program and the KPIs and data requirements of the National Packaging Covenant' (NARGA, 2006, p. 30), both of which they argued could

not be justified in cost-benefit terms. The association's position on environmental issues is also clear in their comment on global warming: 'Despite the bleating of the greens, there is no strong evidence to support greenhouse theory' (Henrick, 2001a).

This analysis of public statements demonstrates that most of the evaluated companies have made strong public commitments to implement PS. However, there are clear differences between sectors in the language they use to discuss PS and packaging issues, reflecting their historical involvement in packaging debates and the leadership role played by industry associations. But what are companies actually doing to implement these corporate commitments? Corporate policies and practices which provide evidence of a practical commitment to PS are investigated in the following two sections.

Policies and policy processes: product stewardship performance

The public policy and discursive processes which were analysed in Chapter 4 established product stewardship as a new framework for the environmental management of packaging. Working through their industry associations, companies were able to shape the policy framework (the voluntary NPC and back-up regulation through the NEPM) into something which, in their view, would meet stakeholder expectations without imposing unreasonable costs on industry.

This section examines the institionalisation of PS within companies by evaluating corporate policies and practices, and by comparing responsiveness in different parts of the supply chain. To assist in this process, seventeen indicators of PS performance have been identified. These are based on the requirements of NPC Mark I, standards of industry 'best practice' and the investigation of stakeholder expectations in Chapter 4. All of these help to define the PS institution. The review of the CSR literature in Chapter 2 highlighted the importance of public policy and stakeholder expectations in defining the social responsibilities of companies. From an institutional perspective, best practice standards are also important because if successful competitors are implementing environmental management initiatives then this increases pressure on other companies in the same field to do the same (Gunningham *et al.*, 2003).

The indicators encompass all functional areas of a business:

- management – policy, resources, environmental management system, environmental accounting and reporting;
- product development – environmental assessment of products, research and development, design for environment and procurement;
- operations – cleaner production and recycling of commercial and industrial waste;
- marketing – marketing strategy and product labelling;
- corporate affairs/environment – product recovery, litter management, voluntary environmental programs, consultation and education.

The indicators and the scoring system which was developed to rate corporate responsiveness are provided in Table 23[100] (more detail on the indicators, including minimum industry standards and 'best practice' examples, is provided in Appendix 3).

Results: implementation of product stewardship policy and practice

The results of the evaluation are provided in Appendix 5 and summarised in the following sections. The average responsiveness score for all 30 companies was 1.2, which is only slightly over the 'compliant' level. The highest individual score was for participation in voluntary environmental programs (1.9), largely because all of the companies are signatories to the NPC (Table 24). The next highest scores were for product recovery (1.7) and cleaner production (1.6). The lowest score was for litter management (0.6), despite the fact that litter is one of the issues identified in Chapter 4 as particularly important to stakeholders such as ENGOs and local government. Low responsiveness scores were also achieved for environmental marketing strategies and product labelling (both 0.9).

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[100] The first version of the guidelines was published in Lewis (2006).

Table 23: Product stewardship indicators and evaluation scores
Note: scores are cumulative, i.e. a company can only receive a '2' score if they have already met the requirements for '1'.

Indicator	Performance score				Sources
	Defensive (0)	**Compliant (1)**	**Progressive (2)**	**Proactive (3)**	
Product-oriented environmental policy, objectives and targets	There is no product stewardship policy in place.	The company has a stated commitment to product stewardship.	The environmental policy identifies product stewardship objectives.	The company has policies and procedures with clear objectives, strategies and measurable targets for product stewardship.	International EMS Standard (Standards Australia and Standards New Zealand, 2004). Environmental management literature, e.g. Sadgrove (1992), Gray and Bebbington (2001). Industry best practice.
Resources	There is no indication of any resources allocated to product stewardship.	A financial contribution has been made to the NPC Transitional Fund.	Financial and human resources are allocated to product stewardship activities, e.g. through the environment manager and special projects.	Responsibility and budget for product stewardship is allocated across all aspects of the business.	NPC (ANZECC, 1999). Industry best practice.
Product-oriented environment management system (EMS)	There is no management system in place to manage product stewardship.	The company has an EMS.	The company has a certified EMS in place for some sites (e.g. high risk sites).	Product stewardship policies and procedures are integrated within the company's EMS.	Environmental management and DFE literature, e.g. International EMS Standard (Standards Australia and Standards New Zealand, 2004), Klinkers *et al.* (1999), Rocha and Brezet (1999), Ammenberg and Sundin (2005a). Industry best practice.
Product-oriented environmental accounting	There is no system is in place to measure product flows or performance against NPC objectives.	A monitoring system is in place to measure performance against NPC objectives.	A product database tracks material flows and achievements against NPC objectives and KPIs.	The product database is also being used for strategic analysis and design for environment.	NPC (ANZECC, 1999). Environmental management literature, e.g. Schaltegger *et al.* (2003), IFAC (2005). Industry best practice.

Indicator	Performance score				Sources
	Defensive (0)	**Compliant (1)**	**Progressive (2)**	**Proactive (3)**	
Product stewardship reporting	There is no public reporting on product stewardship activities.	Product stewardship commitments and achievements are published in annual reports to the NPCC.	An environment or sustainability report is published with information on broader company impacts and initiatives, including product stewardship.	The company publishes an environment or sustainability report which is externally verified or prepared according to the GRI or AA1000 Standard.	NPC (ANZECC, 1999). Industry best practice. Global Reporting Initiative (GRI, 2002).
Environmental assessment of products	Environmental assessment of products is not undertaken.	Some research is being undertaken on the environmental impacts of products, e.g. there is a process to review all packaging over time.	A policy and procedures are in place to ensure an environmental assessment is undertaken for all product development (qualitative or semi-quantitative)	A policy and procedures are in place to ensure an LCA is undertaken for all product development.	NPC (ANZECC, 1999). International LCA Standard (Standards Australia and Standards New Zealand, 1997) DFE literature, e.g. Pujari *et al.* (2003). Industry best practice.
Research and development	There is no expenditure on environmental R&D relating to products.	There is some expenditure on R&D to achieve waste reduction in relation to products.	There is some expenditure on R&D to reduce the environmental impacts of product life cycles.	Significant R&D effort is focused on developing new technologies or products that would position the company as a leader in environmentally improved products.	NPC (ANZECC, 1999). DFE literature, e.g. Rocha and Brezet (1999), Klinkers *et al.* (1999). Industry best practice.
Design for environment (DFE)	Environmental issues are not considered within the design process.	The company uses the Environmental Code of Practice for Packaging (ECoPP) or equivalent in product development and there is some evidence of environmental improvement.	The ECoPP or equivalent is integrated within the product development process and there is a number of reported DFE initiatives.	DFE is included in written policies and procedures for product development and there is evidence of its effectiveness (i.e. products with reduced environmental impact which go beyond lightweighting).	NPC (ANZECC, 1999). DFE literature, e.g. Lewis *et al.* (2001), Pujari *et al.* (2003), Rocha and Brezet (1999), Ehrenfeld and Lenox (1997), ISO (2001). Industry best practice.

Indicator	Performance score				Sources
	Defensive (0)	**Compliant (1)**	**Progressive (2)**	**Proactive (3)**	
Procurement	There is no process in place to involve suppliers in product stewardship.	Suppliers have started to be engaged in product stewardship, e.g. involved in joint projects or encouraged to reduce impacts of products.	An environmental purchasing policy is in place and environmental information is collected from all suppliers.	Suppliers are selected on the basis of their environmental performance and involvement in collaborative projects.	NPC (ANZECC, 1999). Supply chain management and DFE literature, e.g. GEMI (2004), Verghese and Lewis (2007), NZBCSD (2003). Industry best practice.
Cleaner production	There is no evidence of any cleaner production initiatives.	At least one cleaner production initiative has been implemented.	There is a stated commitment to cleaner production and several initiatives have been implemented.	The company has an ambitious goal for waste reduction (e.g. zero waste) and has already achieved significant waste reduction.	NPC (ANZECC, 1999). Cleaner production literature, e.g. Victorian EPA (1997), Dames and Moore (n.d.). Industry best practice.
Recycling of commercial and industrial waste	There is no evidence that solid wastes are recycled apart from in-house reprocessing of clean plastics.	Some waste streams are recycled by external organisations, e.g. cardboard, pallets.	More difficult waste streams are recycled, e.g. stretch film, organic wastes.	The company has an ambitious goal for waste recovery and has already achieved high recovery rates.	NPC (ANZECC, 1999). Industry best practice. Cleaner production literature (see above). Government programs, e.g. Sustainability Victoria (2008). Industry best practice.
Environmental marketing strategies	No environmental marketing is undertaken.	There is some limited environmental marketing, e.g. environmental claims and labels.	Marketing is being used to sell the company's products as environmentally responsible.	Marketing is being used to sell the company as a leader in product stewardship and CSR.	NPC (ANZECC, 1999). DFE and environmental marketing literature, e.g. Klinkers *at al.* (1999), Banerjee (1999). International Standard for environmental claims and labels (Standards Australia and Standards New Zealand, 2000). Industry best practice.

Indicator	Performance score				Sources
	Defensive (0)	**Compliant (1)**	**Progressive (2)**	**Proactive (3)**	
Product labelling	The company does not use any environmental claims or labels, or makes meaningless or incorrect claims.	A program is under way to include logos on products to promote recyclability, recycled content or responsible disposal.	A program is under way to include clear and detailed statements about environmental impact.	The environmental benefits of products are certified by a third-party organisation.	NPC (ANZECC, 1999). International Standard for environmental claims and labels (Standards Australia and Standards New Zealand, 2000). Environmental labelling schemes, e.g. GECA (n.d.), FSC (1996). Industry best practice.
Product recovery	The company does not take any action to ensure products are recovered at end-of-life.	The company contributes to the NPC Transitional Fund which supports recovery. Labelling promotes recyclability where appropriate.	The company is actively involved in an industry program to reprocess its own products, or is undertaking R&D to improve product recovery.	The company is directly involved in collection of at least some its own products for reuse or recycling.	NPC (ANZECC, 1999). Stakeholder expectations (see Chapter 4). Industry best practice.
Litter management	The company does not take any action to minimise the impacts of its products in the litter stream.	Products include an anti-litter logo or advice on appropriate disposal.	The company considers litter impacts during the design process and contributes funding to anti-litter programs.	The company can demonstrate that it has redesigned its products to reduce impacts in the litter stream.	NPC (ANZECC, 1999). Stakeholder expectations (see Chapter Four and Lewis, 2005). Industry best practice.
Voluntary environmental programs	The company is not a signatory to the NPC.	The company is a signatory to the NPC and submitted at least one action plan and at least one annual report.	The company was an early signatory to the NPC (first action plan published in 2001 or earlier) and has submitted all required action plans and annual reports.	The company is also involved in at least one other voluntary government environmental program.	NPC (ANZECC, 1999). A previous evaluation of the NPC (Nolan-ITU, 2004). Voluntary government programs, e.g. Waste Wise (Sustainability Victoria, 2008), Buy Recycled Business Alliance (BRBA, 2008), Greenhouse Challenge (DEWHA, 2008). Industry best practice.

Indicator	Performance score				Sources
	Defensive (0)	**Compliant (1)**	**Progressive (2)**	**Proactive (3)**	
Consultation and education	The company does not communicate with stakeholders about product stewardship.	Education is provided for employees and contractors (e.g. NPC obligations).	Education is provided for suppliers and/or customers.	Other stakeholders are consulted about product stewardship programs, e.g. community, government.	NPC (ANZECC, 1999). Industry best practice. A previous evaluation of the NPC (Nolan-ITU, 2004).

Table 24: Average product stewardship scores by policy indicator

Product stewardship policies	Average score
Management	
Product policy and objectives	1.4
Resource allocation	1.3
Product-oriented EMS	1.3
Product-based accounting	1.1
Product stewardship reporting	1.4
Average score— management	*1.3*
Product development	
Environmental assessment of products	1.0
Research and development	1.1
Design for environment	1.3
Procurement	1.3
Average score—product development	*1.2*
Operations	
Cleaner production	1.6
Recycling of commercial and industrial waste	1.4
Average score—operations	*1.5*
Marketing	
Environmental marketing strategies	0.9
Product labelling	0.9
Average score—marketing	*0.9*
Corporate affairs/environment	
Product recovery	1.7
Litter management	0.6
Voluntary environmental programs	1.9
Consultation and communication	1.3
Average score—corporate affairs / environment	*1.4*

Source: Evaluation of company reports

When these indicators are grouped according to the functional area in the business which would normally have responsibility for implementation, clear differences emerge (Figure 16). The two areas which received the highest scores were operations (1.5) and corporate affairs/environment (1.4) followed by management (1.3), product development (1.2) and marketing (0.9).

Figure 16: Average product stewardship score by business function
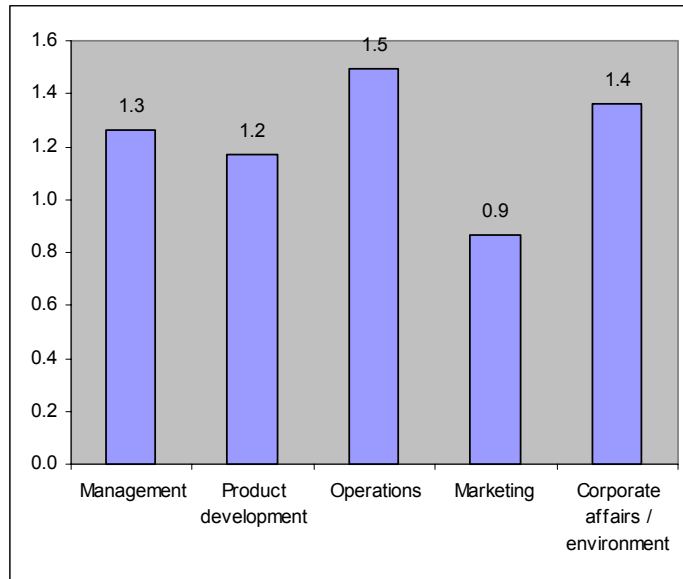
Source: Evaluation of company reports

Management policies and practices achieved a relatively high responsiveness score, with many companies building PS into existing corporate management systems. One of the highest scores in this category was for 'product policy and objectives'. High scores were achieved by companies with a commitment to PS in their environment policy. For example, Amcor Australasia's (2005) environmental policy states that the company is 'committed to product stewardship, managing its operations and designing its products in an environmentally responsible manner'. National Foods Limited (2002) updated their policy in 2002 to include a statement that they would 'apply the principles of the National Packaging Covenant and waste minimisation to the development and management of products throughout their life cycle'.

The lowest score within the management category was for product-based accounting (1.1), which is a relatively new activity for business. While most of the case study companies have a system for monitoring and reporting on NPC commitments, they have a very poor understanding of the quantities and types of packaging they use. This limits their ability to measure the environmental impacts of the packaging they produce or consume, for example by understanding the percentage which is recyclable.

Product development, which includes environmental assessment of products, research and development, design for environment and procurement, achieved the second-lowest average score (1.2). Design for environment achieved one of the highest scores within this category (1.3) but this is still relatively low given that DFE is a particularly important element of PS because of its influence on environmental outcomes throughout the product life cycle. Table 25 provides a summary of the types of DFE initiatives mentioned in company reports. The most common design initiatives involved the lightweighting of packaging or elimination of components, followed by the use of recycled materials. A much smaller percentage of companies have designed products to be recyclable or degradable, or introduced reusable packaging such as reusable shopping bags and reusable transport containers. Some companies have replaced a specific packaging material, normally polyvinyl chloride (PVC), with another which is perceived to be environmentally preferable[101].

Table 25: Companies mentioning DFE projects in their reports

	Number of companies	% of companies
Lightweighting/elimination	26	87
Recycled content	19	63
Design for recycling	12	40
Design for degradability	3	10
Design for reuse	5	17
Use of eco-preferable materials	7	23

Source: Evaluation of company reports

The relatively high score for operational policies (1.5), which include cleaner production and in-house recycling, is consistent with the corporate discourses on packaging and corporate responsibility, which emphasise actions that are under a company's direct 'control and influence'. These policies have also been the focus of corporate environmental management programs for at least a decade and are therefore relatively well established within industry. Many of the case study companies have chosen to focus their NPC action plans on these types of activities, which in many cases were under way before they became signatories. While there is often an up-front cost to design and

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[101] Greenpeace International (2001) has lobbied industry and governments for many years to ban the use of PVC because of its perceived environmental impacts, which include emission of toxic materials during manufacture, use and disposal.

implement these types of policies, ongoing costs can be minimal. There may even be a cost reduction, for example if waste disposal costs are reduced. Foster's Group (2004b) has a 'Buy Recycled' purchasing policy which requires that 'when choosing between products of equivalent quality and cost, Foster's Group must give preference to products which contain recycled material'. This implies that the policy is only implemented when there is no impact on either quality or cost. For Coca-Cola Amatil, water saving initiatives have resulted in a 4% reduction in water use per litre of beverage, or 95 million litres per year (CCA, 2005, p. 24). This would translate into an annual cost saving.

Policies which tend to be implemented by staff in corporate affairs or environment, including product recovery, litter management, voluntary environment programs and communication also have a long history, particularly within packaging and beverage companies. However, there are significant differences within this category, for example between the average scores for product recovery (1.7) and litter management (0.6). The relatively high score for product recovery is primarily because all of the companies pay an annual fee to the Kerbside Transitional Fund—a condition of becoming an NPC signatory—and most of the packaging manufacturers are also directly involved in the collection and reprocessing of waste packaging. Amcor for instance, collect, sort and recycle over 740,000 tonnes of waste paper and packaging each year (Amcor, 2000, p. 14).

Environmental marketing is also relatively new for most companies and achieved the lowest responsiveness score (0.9). Very few companies, with the notable exception of Visy, market the environmental attributes of their products. Many companies are starting to put recycling logos and the Plastics Identification Code on packaging to encourage consumers to recycle, but provide no other information on environmental impact or recovery options. Dulux goes further than most by providing information on correct disposal of used paint and paint tins on packaging, including the steel can recycling logo (Dulux, 2004, p. 5)[102].

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[102] The Plastics Identification Code and other logos are illustrated in Appendix 3.

Comparing words and actions

For some companies the rhetoric they invoke to describe their corporate commitment to PS is not matched by their policies and practices. Carter Holt Harvey's (2001) commitment to being 'unrelenting' in their search for 'cleaner, greener products' (p. 7), for example, is not matched by the policies and practices recorded in their public reports. In this evaluation they achieved a low overall responsiveness score (1.0) and a '0' for the environmental assessment of products because there was no indication that they use LCA or any other evaluation method during product development. There was also no mention in the company's reports that they were using the ECoPP in product development.

Ten of the evaluated companies achieved a responsiveness score of less than 1.0, which suggests that they are doing less than the minimum that would be expected under the NPC and other recognised environmental management standards. This is despite the fact that most of the companies have expressed support for the NPC and/or the principle of PS in their public statements (Table 26), albeit in fairly weak or non-committal language. The non-compliant group in this list includes four retailers, five brand owners (four food and beverage manufacturers and one appliance manufacturer) and one raw material supplier.

Table 26: Comparing words and actions of non-compliant companies

Company	Language used in public statements about packaging responsibility	Responsiveness score
Coles Myer Limited	'The Board and management of Coles Myer Ltd support the packaging Covenant principles and are committed to the Company achieving the objectives outlined in this plan' (Stan Wallis, Chairman, cited in Coles Myer Limited, 2001, p. 1).	0.9
Metcash Trading Limited	'By using the Environmental Code of Practice for Packaging and carrying out some corporate branded reviews we continued to identify ongoing commitments to Product Stewardship...' (Metcash, 2005, p. 2)	0.8
David Jones Limited	'David Jones became a signatory of the NPC in July 2002, recognising its relevance and alignment with our corporate philosophy' (David Jones Limited, 2002, p. 1)	0.4
Bunnings Group Limited	'We support the notion of Product Stewardship, the ethic of continual improvement, working with our suppliers and customers to achieve positive outcomes for the environment, and the community as a whole' (Bunnings Warehouse, 2002, p. 3)	0.7
Bonlac Foods Limited	'In line with BFL's track record of our commitment to the environment, the National Packaging Covenant will play a key role in continuing our commitment to best practice in environmental management issues' (Bonlac Foods, 2004, p. 3)	0.7

Company	Language used in public statements about packaging responsibility	Responsiveness score
Goodman Fielder	'Goodman Fielder is committed to minimising the impacts its product has on the environment ... We continually seek to reduce packaging weight ... (Goodman Fielder, 2004, p. 8).	0.7
Sugar Australia	'Sugar Australia supports the principles of the National Packaging Covenant ... [and] ... commits to implementing the principles of Product Packaging Stewardship' (Sugar Australia, 2000, p. 4).	0.8
Murray Goulburn Co-operative	'We see this initiative as a positive approach to managing packaging and resultant waste associated with it. We support the notion of Product Stewardship, the ethic of continuing importance [sic] and working with suppliers and customers. The Co-operative supports the Environmental Code of Practice for Packaging' (Murray Goulburn Co-operative, 2002, p. 1— note the similarity to Bunnings' commitment above)	0.6
Fisher & Paykel Appliances	'Fisher & Paykel Appliances commitment is to uphold the following ... Design products and processes, particularly material selection and recycling programmes, that have a positive effect in protecting the environment' (Fisher & Paykel, 2003, p. 14).	0.9
Qenos Holdings	'Qenos believes supporting and complying with the National Packaging Covenant is a natural extension of our Safety, Health and Environment Policy and our commitment to Responsible Care ... we embrace the principles of Product Stewardship and Shared Responsibility' (Qenos, 2001, p. 5).	0.9

Company characteristics: industry sector and responsiveness

Industry sector appears to be a major influence on responsiveness (Figure 17). Packaging manufacturers and brand owners achieved the highest overall scores of 1.4 and 1.3 respectively, and retailers achieved the lowest score of 0.8. This puts retailers into the 'defensive' range, which means that they are taking some action but less than the minimum required to maintain a good public image.

Figure 17: Average product stewardship scores by industry sector
(The number of case studies is shown in brackets)
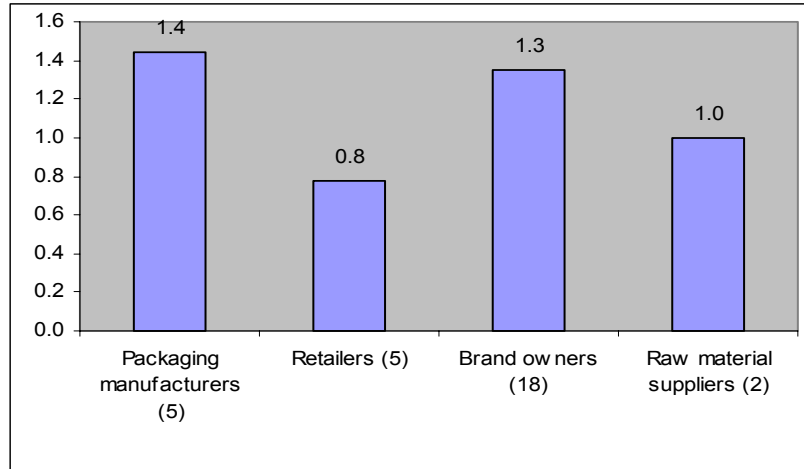
Source: Evaluation of company reports

The low responsiveness score for retailers may reflect the fact that they were not under any pressure to take responsibility for the environmental impacts of packaging until the mid–1990s. The industry association representing the major supermarkets, ASI, opposed the NPC until the last intense days of industry negotiations, when Coles Myer agreed to sign the covenant and in so doing helped to secure industry-wide support and get it 'over the line'. This decision was initially opposed by Woolworths, which did not become a signatory until May 2001, almost two years after the covenant commenced in October 1999. Bunnings, David Jones and Metcash were not involved in the NPC negotiations but did eventually sign NPC Mark I[103].

Most interviewees from the retail sector admitted that their environmental programs were relatively new and had, at least in part, been driven by their involvement in the NPC. Unlike many of the large packaging manufacturers and brand owners, the retailers are based in Australia and until recently had not made any public corporate commitment to sustainability or corporate social responsibility. For example, Coles Myer published its first CSR report in 2005 and Woolworths published its first sustainability report in 2008. The following comments by interviewees highlight the recent shift in the retailers'

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[103] The first action plans for these companies were all submitted in 2002.

approach to environmental management, driven by the NPC and other environmental pressures:

> [The company] have just recently taken a stronger environmental stance, probably because of their higher public profile. That covers everything from energy to supermarkets, to truck movements, to dry water systems for urinals, company policies for hybrid vehicles. So ... they have become a signatory to the covenant, which is the first time they've joined up, so I think they are gradually collecting or mining what they need to do ... [to] appease all the environmental issues that will come in different ways (Personal communication, Company I).

> The company originally saw the National Packaging Covenant as an environmental approach, and basically I was the person driving the concept into the business. Other follow-up projects like the [plastic bags] campaign, the development of waste management practices has been through this office or this department. What has [driven us to implement] a sustainable environmental policy has been the recent development in carbon trading discussions and energy efficiency and water management. Those three initiatives are now being bolted onto those earlier environmental portfolios (Personal communication, Company K).

One company which has been fairly open about the impact of the covenant on their environmental program is hardware retailer Bunnings. After they received a compliance notice from the Queensland EPA in 2002 stating that they could either sign up to the covenant or follow the more onerous rules established under the NEPM, Bunnings became a signatory and made significant changes to their policies and practices (Queensland EPA, 2005, p. 13):

> We'd vaguely heard of the Covenant, but weren't really looking at waste, litter and recycling issues at the time, and product stewardship was a term we certainly hadn't heard of ... When the issue was put to Bunnings directors, it was well supported. Our first action plan signalled a commitment to packaging waste as well as other sustainability outcomes. We not only learnt what product stewardship meant, but started on a program that has changed the culture of the business, our suppliers, and most importantly, our customers (Mark Gomm, National Risk Analysis Manager, Bunnings).

Since joining the covenant, Bunnings has established a recycling program for in-house packaging waste, a sustainable timber purchasing policy, a water and energy management program and a levy on plastic bags to discourage their use by consumers (Queensland

EPA, 2005)[104]. While Bunnings is not alone in establishing these types of programs, this comment is important in clearly linking their program to the influence of the NPC and the NEPM. In their only report to the NPCC under NPC Mark I, retailer David Jones was frank in acknowledging that very little had been done to implement their commitments because other business objectives had taken priority (David Jones Limited, 2004, p. 2):

> David Jones remains committed to the management of environmental issues. However, the reporting period has been a challenging period for the company, where it has had to focus on fixing elements of the company's basic core business performance as its key priority, following recording a loss of $25.5m in the financial year ending 31 July 2003 ... The turnaround in the company's performance has now positioned the company well to focus on other matters, including its NPC Action Plan and related environmental issues.

One of the first commitments in their 2004 report was to '[d]evelop a David Jones Environmental Policy to spearhead the company's commitment to the NPC and encourage further environmental efficiencies' (David Jones Limited, 2004, p. 2).

As discussed in Chapter 4, many of the larger companies in these sectors have been actively involved in PS debates for some time, particularly those involved in the manufacture or packaging of beverages such as beer and soft drink. The average PS responsiveness score for companies who were members of BIEC during NPC Mark I, either as a corporate entity or through one of their divisions[105], was much higher than the score for non-members (Table 27).

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[104] It should be noted, however, that Bunnings did not produce an action plan for NPC Mark II until 2007, two years after it commenced (Bunnings Group Limited, 2007).

[105] During 2003–2004 BIEC had 27 members including seven of the case study companies examined here. They included two divisions of ACI Operations (ACI Glass Packaging and ACI Plastics Packaging), a division of Amcor Australasia (Amcor Beverage Cans), a division of Visy Industries (Visypak) as well as Foster's Group, Cadbury Schweppes and Lion Nathan (BIEC, 2004, pp. 8-9).

Table 27: Average responsiveness scores for BIEC members

Company	Average score
BIEC members:	
Foster's Group	1.8
Lion Nathan	1.7
Cadbury Schweppes	1.7
Coca-Cola Amatil	1.4
ACI Operations	1.2
Amcor Australasia	1.8
Visy Industries	2.0
BIEC average	**1.7**
Average for other companies	**1.1**

Source: Evaluation of company reports

The approach taken by beverage manufacturers was well established by the time the NPC was introduced:

> [PS has not brought about many changes] within our industry, because there really hasn't been any shift, because of the Container Deposit Legislation in 1975 or so, where the beverage industry was forced to take a product stewardship position before it was recognised as that, and before any other industry even considered it was relevant to them ... The industry is essentially unchanged today compared to 1975, in terms of what it manufactures, how it manufactures it, and its expectations of how those containers should be handled. We've only used recyclable containers, and there's been no shift towards or away from them. So no, from the beverage industry point of view it has been thrust back and forth on the storms of the broader EPR debate, but its activities go on. They change over time. As kerbside came in, as littering behaviour changed because of the *Do the Right Thing* campaign the emphasis switched to kerbside, as kerbside became stabilised the emphasis has now shifted to away-from-home [recycling]. So you can see those waves of progression. But the core activity and core products are unchanged (Personal communication, Company E).

The involvement of some packaging companies in recycling activities, both for economic reasons and as a result of stakeholder pressure, has also provided them with a greater capacity to implement PS policies in other parts of the company. For example, an understanding of collection and reprocessing systems is important in knowing how to design packaging for recyclability. This point was made by one of the interviewees:

> It probably needs to be recorded that the recycling division as a whole has been the key driver for product stewardship knowledge and learning as well, because it provides that environmental solution, and in struggling to do that, it's been able to help the company learn what on the input side makes the end-of-the-pipe of product stewardship more feasible (Personal communication, Company A).

There were significant differences between the sectors for some of the PS indicators (Table 28). These tend to be consistent with overall levels of responsiveness in each sector, for example packaging manufacturers and brand owners tend to be more responsive than retailers. Some of the differences also reflect the ability of companies under the NPC to choose strategies which are most relevant to their business. Product development scores, for example, were highest for brand owners (1.4) and packaging manufacturers (1.2), the two sectors with most influence on packaging design (Figure 18). The low score for product development by the retailers is significant given that these companies are becoming important brand owners in their own right and therefore are required under the NPC to implement the Environmental Code of Practice for Packaging.

Table 28: Average responsiveness scores by sector and business function

	Management	Product development	Operations	Marketing	Corporate affairs/ environment
Packaging manufacturers	1.3	1.2	1.7	0.8	2.0
Retailers	0.6	0.5	1.2	0.7	1.1
Brand owners	1.4	1.4	1.5	1.0	1.3
Raw material suppliers	1.1	0.4	1.6	0.8	1.3

Source: Evaluation of company reports

Figure 18: Average responsiveness scores for product development by sector
(The number of companies is shown in brackets)
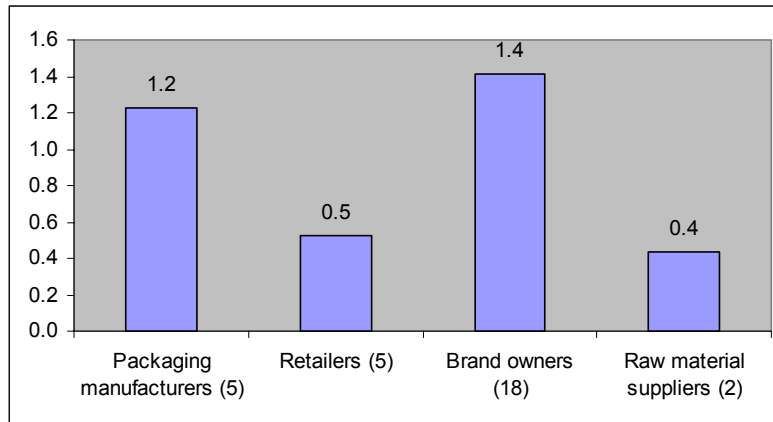
The highest score for environmental marketing (Figure 19) was achieved by brand owners (1.0). This is consistent with the fact that brand owners are largely responsible for direct marketing to consumers. Packaging manufacturers are also involved, for instance by including material identification codes on packaging or encouraging brand owners to use appropriate recycling logos.

Figure 19: Average responsiveness scores for environmental marketing by sector
(The number of companies is shown in brackets)

The score for corporate affairs/environment was much higher for packaging manufacturers (2.0) than for the other sectors (between 1.1 and 1.3) (Figure 20). In all probability this can be attributed to the fact that until recently packaging manufacturers have been under more pressure from governments and ENGOs to address waste and litter issues than other parts of the supply chain, with the notable exception of beverage manufacturers. This only changed during NPC negotiations during the mid–1990s, when other sectors became involved.

Figure 20: Average responsiveness scores for corporate affairs/environment by sector
(The number of companies is shown in brackets)

Source: Evaluation of company reports

The responsiveness scores for operational policies and practices were relatively high and relatively consistent between sectors (Figure 21). Most of these companies have large manufacturing facilities with significant waste streams, and the opportunity to reduce waste management costs tends to drive initiatives such as cleaner production and in-house recycling. Responsiveness to cleaner production was highest among packaging manufacturers (1.9), raw material suppliers (1.8) and brand owners (1.6) and lowest for retailers (1.0). Cleaner production and in-house recycling tend to be a lower priority for retailers than manufacturers because their waste streams are smaller and less hazardous.

Figure 21: Average responsiveness scores for operations by sector
(The number of companies is shown in brackets)
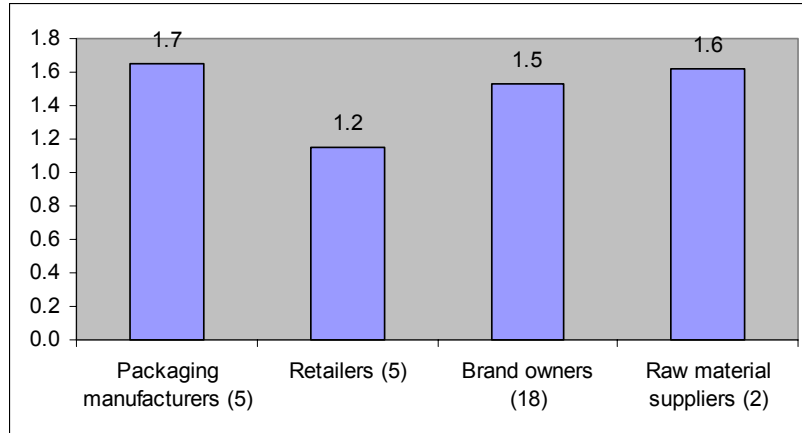
Source: Evaluation of company reports

Responsiveness scores for management indicators, including product policy and objectives, resource allocation, EMS, product-based accounting and PS reporting, also varied widely between sectors (Figure 22). Once again the retail sector was the least responsive (0.6). Only one retailer, Bunnings, mentioned that they had an EMS, resulting in a particularly low score for this indicator (0.2). This is consistent with a survey of Australian companies with certification to ISO 14000 (the international standard for EMS) which found that 43% are in the manufacturing sector and only 0.8% in the retail sector (Zutshi and Sohal, 2004, p.340). Manufacturing companies tend to have more significant environmental impacts and are subject to stricter environmental regulation on issues such as waste and pollution than companies in other sectors.
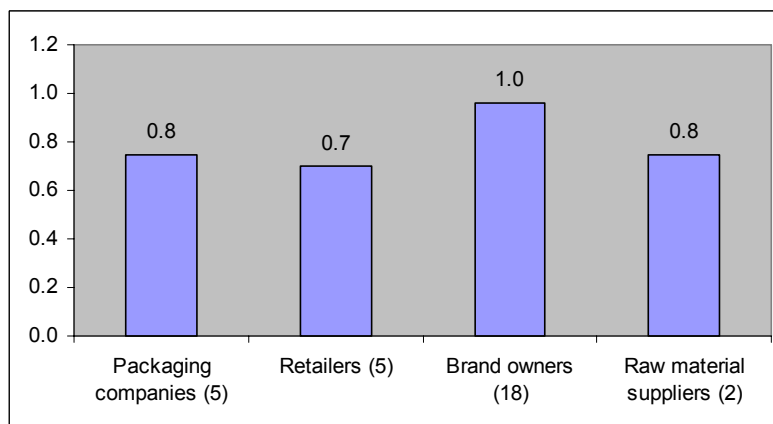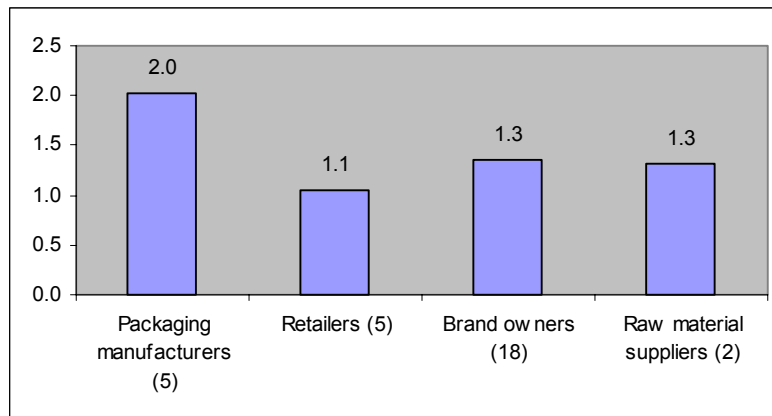
Figure 22: Average responsiveness scores for management by sector
(The number of companies is shown in brackets)
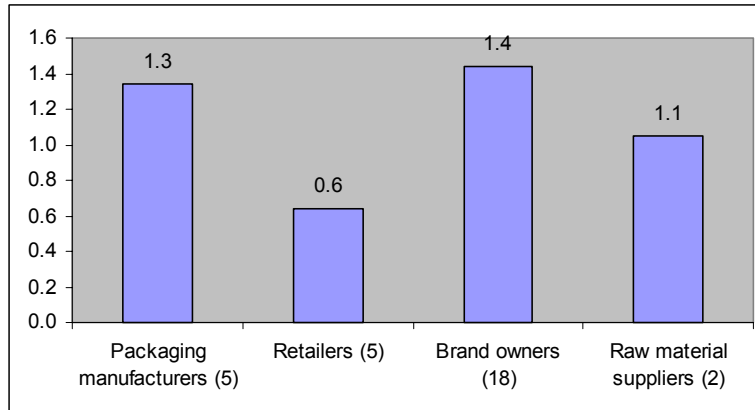
Source: Evaluation of company reports

Conclusion

This chapter has investigated the institutionalisation of PS at a meso level by asking the question: *How and to what extent is product stewardship being institutionalised by companies in different sectors of the packaging supply chain, particularly raw material suppliers, packaging manufacturers, brand owners and retailers?* The discussion distinguished between sectors with different roles and interests in relation to packaging; examined the language used by companies and industry associations to express their commitment to the environmental management of packaging; identified policies and practices which could be used to institutionalise PS within companies; and then rated the PS responsiveness of 30 case study companies. Finally, the implementation of policies and practices was compared across different industry sectors.

The research found that PS is being institutionalised throughout the supply chain through corporate language, policy and practice. Most companies have incorporated the language of PS into their public statements and are implementing environmental policies and practices which aim to reduce the environmental impacts of packaging. However, most are only doing the minimum required to meet stakeholder expectations. In some cases there is a gap between the language they use in public to describe their commitment to PS, and the implementation of PS through policy and practice.

Companies are most responsive in operational areas, such as cleaner production and in-house recycling, which have been the focus of government policy and corporate environmental management for many years. They are also relatively responsive in corporate affairs and environmental management activities that involve interaction with external stakeholders, such as product recovery and voluntary environmental programs. They are less responsive in core business areas such as product development and marketing, where corporate decisions about packaging design have a significant impact on its life cycle environmental impacts. There is also another important gap relating to stakeholder expectations. Litter management policies, including design, labelling and funding for external anti-litter initiatives, achieved a very low score despite the fact that litter is a key issue for stakeholders such as ENGOs and local government.

Overall responsiveness varied between sectors. Packaging manufacturers and brand owners were the most responsive and, within this group, beverage manufacturers and their packaging suppliers were the best performers. They use terms such as 'product stewardship', 'shared responsibility' and 'life cycle management' in their public reports, and achieved a relatively high score for PS policy and practice. The CSR literature suggested that companies are more likely to be responsive if they are exposed to public or government scrutiny, so the higher responsiveness of brand owners and packaging manufacturers is not unexpected. It reflects the fact that these companies have been under pressure for many years to implement voluntary corporate responsibility programs in order to avoid CDL. Their industry associations—particularly PCA and BIEC—have played a leadership role in negotiating voluntary agreements, most recently the NPC. They have also promoted the benefits of PS and the NPC to their members.

Retailers are at the other end of the spectrum. They were one of the last sectors to get involved in policy debates about the environmental impacts of packaging, and their industry associations—particularly ASI—have been much less supportive of voluntary responsibility than those representing the packaging industry and brand owners. As discussed in Chapter 4, final industry agreement on NPC Mark I was only reached in 1998 after two years of negotiation, when one of the two key members of ASI decided to ignore the association's advice and agreed to contribute funding to the transitional funding mechanism. Not surprisingly, the relatively unenthusiastic approach of retail associations towards voluntary responsibility for packaging is reflected in the policies and practices

being implemented by companies in this sector. Retailers received the lowest average score for PS responsiveness, which puts them in the 'defensive' range.

These results suggest that corporate responsiveness to PS is strongly linked to the extent to which companies in different sectors have been exposed to stakeholder pressure, particularly from governments and ENGOs, to reduce the environmental impacts of packaging. It also appears to have been influenced by the leadership role played by industry associations in promoting PS to their members. The implementation of *particular* policies and practices was also found to vary between sectors. One of the perceived advantages of the NPC from an industry point of view is its flexibility, i.e. the ability of companies to choose how and when they respond to the broad objectives and requirements of the covenant. Some of the differences in the way that individual sectors have responded can be explained by the nature of their business activities. Product development, for example, is more relevant to packaging manufacturers and brand owners than to raw material suppliers and retailers.

The next chapter will explore the institutionalisation of PS within companies in more detail. In particular, it will investigate the way that PS outcomes are negotiated internally and with external stakeholders, and the organisational changes which are helping to institutionalise PS in corporate policy and practice.

Chapter 6

Institutionalising product stewardship within companies

The previous chapter investigated the extent to which PS has been institutionalised in policies and practices at an industry level. Companies associated with the beverage industry (brand owners and packaging manufacturers) were found to be the most responsive and those in the retail industry to be least responsive. This was linked to both the exposure of companies in these sectors to government pressure and the role of industry associations in promoting PS as a legitimate and necessary strategy for companies.

This Chapter extends the analysis to the micro level by examining institutionalising processes *within* companies. The aim is to answer the question: *How and why are individual companies implementing product stewardship?* The focus is on the dynamics of internal decision-making processes, including the influence of stakeholders on functional groups within the firm, and structural and process changes which are helping to institutionalise PS in everyday practice. Semi-structured interviews were conducted with 15 people from the case study companies evaluated in Chapter 5. While the identity of the interviewees is confidential, they were selected to represent a diverse group of companies by sector, size and location of head office. They also have different professional roles in environmental management, product development, marketing and technical services (Table 29). Each interviewee has formal responsibility for NPC compliance, i.e. they are listed as one of the key contacts within their NPC action plans and reports.

The interviews suggest that people from different functional groups within a company have different goals and external stakeholders which influence their approach to PS in general and the NPC in particular. The development and implementation of PS strategies is therefore a political process that aims to balance multiple, and sometimes competing, organisational goals. The successful institutionalisation of PS is linked to discursive processes that make connections between PS and other corporate objectives such as efficiency and brand value; the presence of a strong project 'champion' or project team; cross-functional coordination and engagement; the allocation of responsibility to all relevant functional groups in the organisation; and the development of business systems

and procedures that ensure PS policy is embedded in everyday practice. The research found that larger, high-profile companies, particularly those based in Europe and the US, tend to be more responsive than smaller companies and those based in Australia and the Asia–Pacific region.

Table 29: Interviewees by industry sector and functional group

Industry sector	Functional group within the company	Number of interviews*
Packaging manufacturers	Corporate affairs	1
	Environment	4
	Marketing	1
Brand owners	Environment	4
	Packaging	2
Retailers	Environment	1
	Packaging	1
	Technical services	1
TOTAL		**15**

 * Interviews were held with 15 people from 14 companies (two people from one company were interviewed, one from corporate affairs and one from environment).

Interest groups: interaction between internal groups and the organisational field

The policies and practices identified in Chapter 5 have implications for almost every area of a company's business. Each functional group has a different role, for example:

- Marketing and product development staff—including the packaging group if there is one—need to consider environmental impacts during the product development process.

- Procurement staff need to ensure that suppliers of packaging and other products meet the company's environmental guidelines.

- Environment and corporate affairs staff need to ensure that the company meets the expectations of government and ENGO stakeholders, for example by preparing NPC action plans and reports.

PS therefore requires a coordinated approach with input from many different groups. Of the 30 company case studies which have been evaluated, 16 assigned responsibility for coordination of NPC actions to an environmental manager and the remainder to people in

other functional areas (Table 30). In some cases responsibility is shared between two people, such as between environment and packaging, or environment and marketing. One manager with environmental responsibilities noted that he prepares the company's NPC action plans in conjunction with the marketing manager because of her direct link to customers: 'Because she's marketing manager she deals with the customers and [our NPC action plan is] always going to be ... interrelated with what the customers expect of us' (Personal communication, Company D).

Table 30: Company case studies: responsibility for NPC coordination and reporting

Functional group with responsibility for the NPC	Number of companies
Environment	16
Corporate Affairs	4
Marketing	2
Packaging	2
Procurement	2
Management	1
Operations	1
Technical services	2
Business Development	2
Not specified	2
Total	**34***

* Four companies allocated responsibility to two people from different areas.
Source: NPC reports and interviews.

PS strategies within firms are determined through a process of negotiation between functional groups with different objectives and levels of power within the company. These reflect, at least in part, the objectives and power of different external stakeholders. To use Mintzberg's (1983) language, policy is determined by functional groups in the 'internal coalition', which interact with each other and with dispersed members of an 'external coalition'. However, some external stakeholders have more power and influence than others. As Mitchell *et al.* (1997) argued, managers decide how to respond to stakeholder demands based on their perceptions about their legitimacy, power and urgency. This means that the challenge for companies in implementing PS policies is not just one of communication and coordination. It is also a process of negotiation between internal and external stakeholders, particularly for activities relating to product development. Each

functional group has regular contact with external stakeholder groups who try to influence the activities of the company.

One interviewee acknowledged that the only way she had been able to convince some groups to implement PS internally was by referring to the expectations of a diverse range of stakeholders. As she tried to drive change through the organisation she found that the NPC alone was not sufficient to motivate people—'eyes started rolling in the back of their heads'—but they did respond when she referred to their global packaging policy and the expectations of NGOs, customers and consumers: '... suddenly it's ooh! I have a reason *why* I must think about this' (Personal communication, Company O).

Some of the relationships between interest groups within the company, suppliers and customers which have an influence on the environmental impacts of packaging (both positive and negative) are shown in Figure 23. As discussed in Chapter 5, retailers are constantly putting pressure on their suppliers to reduce costs and meet sales targets in order to retain shelf space in supermarkets. This influences packaging development within brand owners and packaging manufacturers:

- Product development and procurement staff within a brand owner company will negotiate with their packaging supplier to reduce costs and/or enhance packaging performance.

- The marketing team within the packaging manufacturer will then liaise with their product development team to ensure that they meet the brand owner's requirements.

Corporate DFE policies may or may not be taken into account depending on the relative power and influence of internal and external stakeholders.

Figure 23: Interest groups involved in packaging development
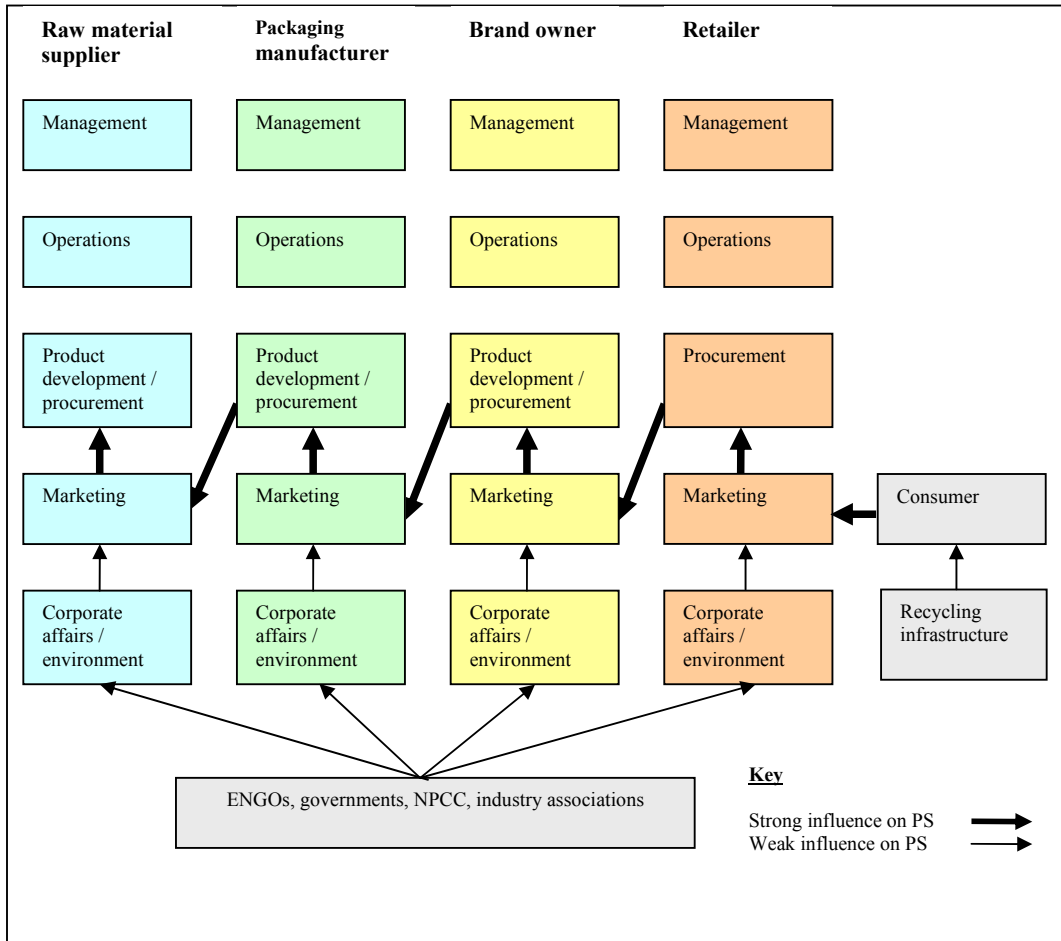
Feedback from industry representatives on the role of functional groups within the company and their external stakeholders in driving packaging development and other areas of PS performance is provided in the following sections.

The role of management

In most cases management does not appear to be a major driver of PS within companies, although it can be a barrier. One environmental manager claimed that his ability to implement the company's NPC action plan was limited because of a lack of resources and opposition from the chief executive officer (CEO) and some senior managers:

> Later in the process when [the new CEO] came on board there were
> some other issues. [His] idea was that he had to return the company to

> profitability and the only thing that counted was sales and profit and shareholder return: 'Talk to me about environment, does it do anything for me in those things? Show it to me.' It was hard. (Personal communication, Company G).

The lack of support from the CEO meant that the environmental manager had difficulty convincing senior managers in the organisation to take action. The organisation as a whole was not committed to implementation of the NPC action plan and the CEO provided no support: 'As we worked through that we realised that we had to get the signature of each brand MD to go forward. Having the signature of [the CEO] was not enough' (Personal communication, Company G).

In contrast, other companies have had strong support from senior management, and this has been critical to the success of PS programs:

> I have to say the CEO [and I] got in sync. very early ... when I did my initial reviews and said there are opportunities here to save some money for the company, to build some standards across the company, he pretty much endorsed it (Personal communication, Company K).

> Then there's been a genuine commitment from the company in their corporate philosophy to the triple bottom line performance, even though we didn't call it that. For a long time [the CEO] has been very strongly committed to the environment and social performance (Personal communication, Company A).

In the latter case, the commitment of the CEO and other senior management to environmental performance in general, and PS in particular, has helped to create a culture in which PS performance is understood and practised by most staff members: 'I think if you talk to most people who have had much experience at [this company], they would be able to tell you what our product stewardship commitments are. I think that's a sign that it's in the culture' (Personal communication, Company A).

These experiences reinforce the importance of a strong corporate policy and commitment from senior management in driving organisational change.

Corporate affairs and environment, and their stakeholders

The responsibilities of corporate affairs and environment staff include legal compliance, public relations and reputation management, so their key stakeholders on product-related issues tend to be government agencies, ENGOs and industry associations. These are the

stakeholder groups which are driving PS at a socio-political level and therefore could be expected to have a strong influence on PS policy and practice within firms.

The covenant certainly does appear to be an important driver for many companies, for example by raising awareness of packaging-related environmental issues at a senior management level in companies across the supply chain:

> The covenant has raised the level of awareness in a broader range of the supply chain. If not the chief executives then at least the general managers of the brand names are now grappling with this issue; acknowledging that there is a risk and there is a responsibility (Personal communication, Company A).

However, companies are highly critical of the lack of commitment by state governments to enforcing the NEPM, which they claim is undermining the effectiveness of the covenant by reducing the incentive for companies to take voluntary action. The following comments illustrate the view which was expressed by most interviewees, but particularly those in environment or corporate affairs roles:

> I'd like to see greater involvement from government. That's been very disappointing—that companies can free-ride the system is one of the greatest travesties in the last five years. Even now governments are reluctant to take responsibility and force those companies to do something. It's an illogical position that they cannot maintain (Personal communication, Company A).

> In the last five years I don't think there has been a lot influence or pressure that government has put on us or the industry ... it's given [this company] and the industry some sort of comfort and security that, 'ok, now we have got the covenant so we can sit back and go back to normal' to some extent (Personal communication, Company B1).

In contrast, there is acknowledgement that threats by some state governments to introduce CDL[106] are a strong motivation for the beverage industry, and that the NEPM has been instrumental in ensuring that other brand owners participate in the covenant. This has helped packaging manufacturers to pursue PS strategies with the customers:

> [Companies have been more responsive as a result of the covenant], at least the smaller ones and major companies such as Amatil and the

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[106] State government investigations into CDL were discussed in Chapter 4. The Senate also undertook an inquiry into the management of Australia's waste streams in 2008, with a specific reference to CDL. This was in response to the introduction of the *Drink Container Recycling Bill 2008* by independent Senator Steve Fielding.

> breweries ... That's helped us, whereas before they just figured that we would do it (Personal communication, Company D).

These comments support research which concluded that self-regulation will be more effective if there is a strong external pressure, for example through the threat of regulation, or some way of dealing with free-riders (Gunningham and Rees, 1997).

One interviewee commented that industry is looking for more support rather than threats of regulation from governments: 'I think that corporations are probably looking for more assistance ... I don't think they necessarily need to be regulated but I think they need some good compliance standards. The covenant needs more drive ... (Personal communication, Company N).

For some companies, the covenant has simply reinforced an existing corporate commitment that had been driven by earlier government policies:

> [The NPC] was the thing that made us sit down and document everything; actually work out what we were going to do. It was the key driver of that ... But it wasn't the initiator because we'd been talking to governments about the Industry Waste Reduction Agreements and those sorts of things prior to that. Things like litter have been on the agenda since the first store was built ... (Personal communication, Company H)

Local government was mentioned by several manufacturers as an important stakeholder because of their active role in establishing and promoting kerbside recycling programs:

> Our biggest stakeholder is local government, because they are the ones who are most impacted by our products. So we spend most of our time with local government trying to support them. We also fight them. We want the same outcomes; we just want philosophically different ways of achieving them (Personal communication, Company E).

This is a reference to the fact that, as outlined in Chapter 4, local government groups have long argued for a regulated EPR policy which would put more of the financial cost of recycling on to industry. However, at a practical level some companies and industry associations—particularly BIEC/PSF—work collaboratively with local government to improve kerbside and public place collection systems. The available infrastructure for recovery and recycling of packaging materials, including kerbside collection systems and reprocessing facilities, limits the options which are available to companies either to recover production waste or to promote recycling of post-consumer packaging:

> [Glass recovery rates] have been going backwards since 2002. That's when we hit our peak in terms of recovery rates ... The change from kerbside sorting to an automatic collection system means we get more breakage (Personal communication, Company D).

> But the main area which has been a significant barrier which we haven't been able to move past has been the waste and recycling side of things ... We've still got stores which take their rubbish to the tip in a trailer. In this day and age you wouldn't even think that was where we were at. We've got a lot of stores with no access to cardboard recycling services (Personal communication, Company H).

> Unfortunately in Australia we don't have an established infrastructure to collect and recycle plastic film efficiently ... we need to still find a solution somehow ... (Personal communication, Company M).

Perhaps surprisingly, industry associations were rarely mentioned as drivers by interviewees beyond their participation in the NPCC. While most associations were heavily involved in negotiations to establish the NPC and to institutionalise PS as the principle which underpins packaging policy, these interviews support the conclusion that they have played little role since then in promoting the implementation of PS within firms.

ENGOs were also not considered to be a major driver by interviewees, although some companies have developed working relationships with ENGOs to implement specific programs, or have used them as a source of advice. For example, one of the retailers has worked with Clean Up Australia and Planet Ark on waste minimisation programs. Another company has developed a more strategic relationship with ACF:

> The ACF has had a lot to do with [the company's] direction and vision ... It's a constant reminder for everyone. You can get caught up in your own focus, your own business, and end up gazing at your navel. Those people have acted as a reality check (Personal communication, Company A).

ENGOs may have had more direct influence on packaging through the DUMP awards[107]. These are discussed further in the following section.

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[107] The annual DUMP Awards are managed by Environment Victoria with the support of other ENGOs through the Boomerang Alliance. Their aim is to highlight positive or negative changes to packaging, to inform consumer choice, and to encourage manufacturers and retailers to implement the Environmental Code of Practice for Packaging (Environment Victoria, 2007b, p. 4). In announcing the 2007 awards, a spokesman for the Boomerang Alliance noted that 'many companies using packaging were in breach of the industry's own environmental code of practice and it was clear the voluntary system was failing' (Environment Victoria, 2007a).

Marketing and product development, and their stakeholders

However, while governments and ENGOs have encouraged companies to implement or formalise many of their PS commitments, when it comes to packaging design it is the customer who normally holds the upper hand. While corporate affairs and environment staff may have a good understanding of public policy requirements and technical knowledge about the environmental impacts of packaging, product design is controlled by marketing staff. Both environment and corporate affairs are support functions which are separate to a company's core business, whereas marketing is a central activity that determines which products will be manufactured each year and how they will be manufactured, based on the perceived needs and expectations of the organisation's customers. Food and packaging technologists also have a critical role in product development. A large packaging user, for example a food brand owner, may employ a number of technologists at both the corporate and the divisional level to work with marketing staff and packaging suppliers on the development of new products and packaging. Within smaller companies this role may be undertaken by marketing staff, which will then, by necessity, rely more heavily on suppliers for packaging development and design.

Companies can improve their capability in DFE by drawing on internal expertise in the environment group as well as external expertise (Lenox and Ehrenfeld, 1997). This is starting to happen in packaging manufacturers and brand owners in Australia. However, there are often significant differences between marketing, packaging and environment groups in their values, goals and allegiances to external stakeholders. The job of marketers is to develop and market products that the customer wants and which generate sales and profit. Their external allegiance is primarily to the customer. The job of an environmental manager is to ensure that the company complies with environmental laws and policies and, to the extent that they can without compromising other corporate goals, to respond to the expectations of government, community and ENGO stakeholders. Their primary external allegiances are therefore more likely to be to these groups rather than to the customer. The following comments by environmental managers highlight the frustration they often face in trying to influence marketing groups:

> One of the things that's really hard is that marketers traditionally are
> about selling sizzle ... they bully you because they have a

> preconceived goal that they want and they have a preconceived way of getting there because they are the marketing experts. And anybody outside that forum is not going to be listened to (Personal communication, Company N).

> Well ultimately the particular package or design of a package is a negotiation between the company—this company as a manufacturer—and the customer who wants it. The primary pressure is the customer in the end ... often the driver can be some—I'll be blunt—some fruitcake marketer in the top office whose interest is in glamour and glitz and what looks good in a fashion magazine (Personal communication, Company C).

While some individuals are responsive to PS because they agree with its objectives, marketing groups are particularly sensitive to any criticism of the company which could damage corporate reputation. ENGOs have been influential through the annual DUMP Awards, which highlight examples of packaging which are regarded as environmentally damaging. These awards and the related media coverage have the potential to damage a corporate reputation and have helped to motivate at least one previous award 'winner':

> The first DUMP award certainly had an influence. Any negative publicity is enough for people to take notice and it's enough for us to start to make a change. This is not [the company] speaking, it's me personally speaking, but it actually worked to my advantage. It helped me to drive change because you need to understand the risks, and if the risks are quite real because it actually happened, it's much easier to drive a change through (Personal communication, Company O).

Food and packaging technologists also have an important role to play in product development but the process is controlled by marketing staff. One interviewee commented that the packaging role tends to be undervalued and to a certain extent 'hidden' within corporations. However, in his view the NPC has raised the profile of packaging in many companies and provided technologists with a stronger voice in product development:

> It's the marketers and the sales and the prominent functions [that get noticed]. Not a lot of corporate senior managers knew a lot about packaging. So the covenant comes along and all of a sudden the MD's are forced to know and understand packaging ... to focus on environmental performance means you need qualified packaging people and if you have qualified packaging people, you are then are in a position to drive agendas with suppliers and drive innovation... (Personal communication, Company M)

The key external stakeholder for product development is the customer—either the retailer for the brand owner or the brand owner for the packaging manufacturer. Packaging manufacturers claim that some brand owners, particularly the larger, high profile

companies and those with global commitments to CSR, have genuine commitments to PS and expect their suppliers to meet environmental requirements: '[Our ability to influence design] depends on the customer. Some of them are very open to it and just see it as part of good business as well as part of product stewardship and the covenant. It's a lot to do with their corporate philosophy...' (Personal communication, Company A).

However, the perception is that while the covenant may be starting to influence brand owners, many remain focused on commercial issues at the expense of environmental performance. This limits the ability of packaging manufacturers to achieve better PS outcomes:

> It is not our brand on the actual product and I am not saying that as a cop-out, but we actually don't control the design of the packaging. We can come up with a whole series of options for our customers but ultimately we don't control it. We will basically make what they want us to make, because if we don't then [our opposition] will make it ... For packaging it's cost, cost and cost (Personal communication, Company B2).

Another representative from a packaging manufacturer made a similar comment, claiming that if the customer wants a heavier container, despite advice about its higher environmental impacts, then 'in all likelihood that's what the customer will get ... Without them then you do not have a business so they dictate the terms' (Personal communication, Company D).

There are signs that some brand owners are becoming more engaged in PS, which in turn is encouraging marketing groups to consult environmental staff within the company about design issues. The environmental manager in one packaging manufacturer finds it much easier to influence marketing staff now that their customers—the brand owners—are starting to look for environmental innovation:

> When the chief executives of [our customers] start to say, 'We're interested in the environmental footprint', all our marketing guys who have never heard of the concept before, suddenly say, '...I've had this request, what does it mean?' ... once their customer at a senior level is interested, suddenly they're all over it like a rash (Personal communication, Company C).

The brand owners in turn believe that their performance is often compromised by the demands of retailers. They claim that until recently the major supermarkets have not been

serious about PS and therefore have not been driving environmental change in their supply chains:

> [Retailers are not a driver] on environmental matters ... Woolworths were playing around, asking us to fill in questionnaires about our product stewardship initiatives. We asked them what they did with the questionnaires, and they said they have a big filing cabinet somewhere and they are in there. It was a farce (Personal communication, Company E).

A similar comment was made by another interviewee about Coles. While the retailer had contacted brand owners to ask them about their environmental initiatives, very little appeared to have changed in practice. The attitude of the retailers is perhaps not surprising given that *their* customer—the consumer—also appears to be relatively indifferent to the environmental performance of packaging. Almost all of the interviewees commented that consumers in general are not looking for more environmentally friendly packaging, and that those who *do* express an interest are generally unwilling to pay more for it:

> I was being critical of designers and marketers before, but in the end they probably know their customer better than I do—your average punter doesn't really think about the environment too much (Personal communication, Company C).

These comments are supported by other research. For example, a survey of consumers at the point of purchase in supermarkets (Taverner Research Company, 2004, p. 1) found that only 3% of respondents had considered the environmental impacts of packaging in their purchasing decisions. This is despite the fact that in most surveys people consistently express concerns about the environmental impacts of packaging and claim to use less packaging where possible (e.g. DEC, 2006; Newspoll, 2004; Lea and Worsley, 2008). However, one interviewee mentioned that interest from consumers has increased in recent years, albeit from a low base:

> I have been monitoring consumer complaints with regard to environment [and] it's increased about 25% in the last year. Again, the complaint factor is very, very small, nonetheless it's increased. Minimal when compared to complaining about quality, safety, suitability; but it has increased (Personal communication, Company O).

Another group which has a stronger influence on packaging design as a result of the NPC is the recycling sector. Recyclers have to deal with the packaging which ends up in their reprocessing facilities, so it is in their interest to ensure that packaging is designed for

recyclability. For example, they want to minimise the amount of 'contamination' (non-recyclable material) such as non-recyclable caps and labels on recyclable bottles. The NPC has provided them with greater legitimacy as a stakeholder:

> In the past if we had done something that was detrimental to Visy Recycling's business, they wouldn't have raised it with us, because we're a major customer, and they would be concerned that it would damage their business relationship with us. The covenant has made it much easier for them to tentatively pressure us, if something we are doing is not the best and they would like to talk to us and see if they can work out some possible solutions (Personal communication, Company E).

At least one company has established a formal process of review in conjunction with Visy Recycling to ensure that new packaging designs are screened for recyclability before being finalised.

In conclusion, there are many different interests within a company that influence PS policy and practice. Effective leadership from senior management is critical because environmental managers and other staff with NPC responsibilities find it very difficult to drive change through the organisation without their support. The effective implementation of PS requires the involvement of many different functional groups within the firm. Each group has a different role in relation to packaging and their approach to PS will depend on the expectations of salient stakeholders. Environment and corporate affairs personnel tend to have links with government agencies, the NPCC, ENGOs and industry associations on PS issues, including compliance with the NPC. As a result they try to drive PS through their organisation by gaining the support of other groups such as marketing. However, the influence of the NPC on PS strategy in core parts of the business is often limited because there appears to be no real threat of regulatory enforcement. The most influential stakeholder is the customer and, while advice can be provided on the environmental implications of a particular decision, ultimately 'what the customer wants, the customer gets'.

The institutionalisation of PS within companies appears to depend largely on the attitudes and commitment of individuals in core functions, and the support that they receive from customers. Relationships with stakeholders involved in collection and recycling of packaging are also important, so some companies have developed closer links with local government and recyclers.

Packaging discourses: rationalising product stewardship

The language used by companies in public statements to frame their responsibilities for packaging (summarised in Appendix 4), as well as interviews with company representatives, highlight some common themes in discourses about the packaging problem and product stewardship. Of particular relevance to this research is the way that PS is being institutionalised within companies by linking it to existing business objectives.

While their public statements connect PS strategies to broader concepts such as environmental management, corporate social responsibility and sustainability, interviews with company representatives reveal a different story. While social responsibility and sustainability were certainly mentioned as drivers, PS is largely framed in terms such as efficiency, risk management, reputation, business opportunity and brand value (Figure 24).

Figure 24: Frames used by company representatives to rationalise PS
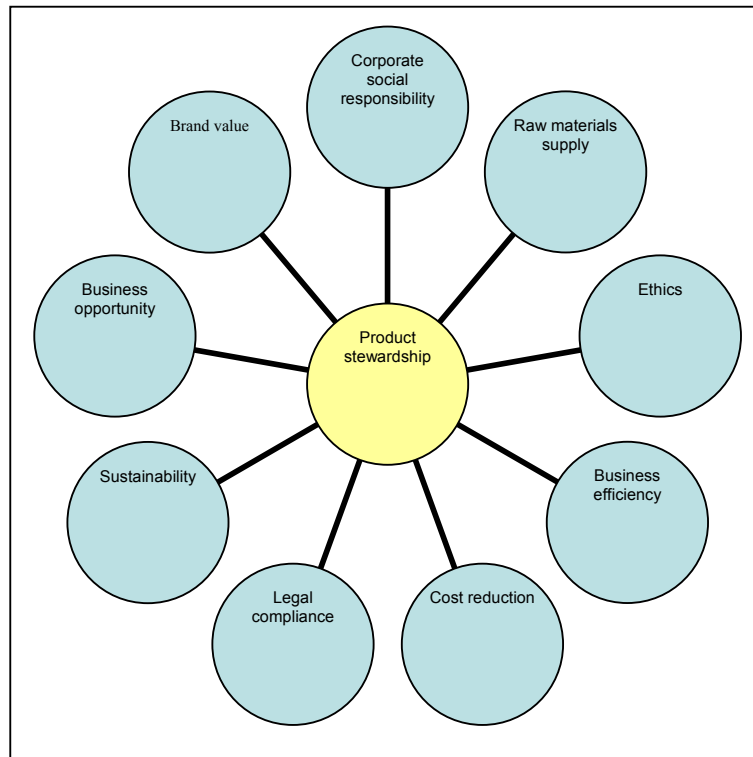
This makes it much easier to 'sell' PS internally. As one interviewee noted, most of their environmental strategies, such as reducing packaging weight, improving transport efficiencies, water efficiency and energy efficiency, are commercially driven:

> We try and make the [NPC] action items relate specifically to business processes rather than doing anything over and above or outside the business process. Because when it's in the business process, people have something tangible to focus on and work towards (Personal communication, Company J).

PS is regarded by many as an opportunity to increase efficiencies in production and distribution, particularly by 'lightweighting', or using less material in packaging. It is therefore connected to supply chain pressures to reduce costs:

> [I]f the National Packaging Covenant didn't exist and if we didn't have a corporate environmental policy and if we didn't have a sustainability policy, we'd still be doing it ... We'd still be doing all of it because it's really every time you do it, it's cost savings ... if you reduce the weight of packaging material, it's a cost saving ... if you increase recycled content ... it's been a cost saving (Personal communication, Company M).

The NPC appears to be providing companies with an incentive to look harder for efficiency opportunities. However, one interviewee commented that this is at the margin

> There are small things done around the edges by all the companies that I think they genuinely do for the 'feel good' factor. But 90% [of the] improvements are probably things that would logically happen for economic reasons ... To the extent that the Packaging Covenant gives you another motivation, [it] perhaps allows you to go that extra 10% (Personal communication, Company C).

Some packaging manufacturers are directly involved in the recovery and reprocessing of packaging materials and this is rationalised in both economic and political terms. While they acknowledge the environmental benefits of recycled materials and promote these benefits in their public reports, it was not originally driven by environmental objectives. For example, recycled glass ('cullet') reduces energy costs and improves throughput in a glass manufacturing plant, and recycled paper fibre is often a cheaper source of raw material than virgin fibre. For some companies, it is also a reliable source of raw material:

> Plus there are community expectations in relationship to forestry. When paper mills first started up in Australia there weren't plantations like there are now. There still aren't eucalypt plantations in Australia, and it's going to get to a certain point when the community is not going to accept clear felling of old growth forests. So [recycling] is

> about long term sustainability of the business and that means access to raw materials (Personal communication, Company B2).

Some brand owners are also requesting more recycled material in their packaging, and this makes recycling a marketing issue. Commercial benefits appear to the main driver for packaging manufacturers involved in recycling operations—one interviewee commented, 'We certainly are pleased about the environmental warm fuzzies you get from being involved in recycling [but] if we don't make a profit then we will not recycle (Personal communication, Company C). However, the NPC and political drivers such as government threats of CDL for beverage containers are still important drivers for these companies given that recycling is not always profitable. For example, glass recycling generates commercial benefits but is becoming more marginal as an economic activity:

> It's been driven by two aspects: the political aspect that we have obligations under the Packaging Covenant to support and increase recycling, and the other aspect is economic. There is an economic benefit in some circumstances to reusing glass back again ... You can increase the output of a furnace by increasing cullet (Personal communication, Company D).

The economic benefits of lightweighting and recycled content in packaging help to explain why most companies implement one or both of these strategies (Table 25 in Chapter 5): these initiatives reduce packaging material costs and are therefore pursued for commercial as well as environmental reasons. Kimberly-Clark had a global target of a 10% reduction in packaging by weight by 2005, and in the process achieved cost savings of $US60–70 million per year (Kimberly-Clark, 2006, p. 27). The emphasis on lightweighting is also positive from an environmental perspective—LCA studies indicate that minimisation of packaging is the most effective action that can be taken to improve the environmental performance of packaging (Parker, 2008). However, lightweighting may be reaching its technical limits in some areas, an issue raised in a report by Coca-Cola Amatil (CCA, 2004, p. 5): 'After a decade of continuous improvement in this aspect of our packaging design, we are approaching the physical limit where further reductions may not be possible.'

A few interviewees commented that PS strategies have the potential to open up new market opportunities. One company had developed a new range of compostable products which it hopes will succeed in the market on the basis of their environmental attributes.

Another expects some indirect benefits linked to improved supply chain relationships and enhanced reputation:

> You know, you can take this stuff as a threat and say, this going to be a lot of extra work, an impost, we have to establish systems and stuff, but at the end of the day I think ... if people do this stuff seriously, there *is* an opportunity for companies to position themselves, to differentiate themselves if you like, with what others are doing (Personal communication, Company B1).

A number of the TNCs have CSR or corporate citizenship policies but, perhaps surprisingly, only Cadbury Schweppes and Coca-Cola Amatil talk explicitly about their NPC commitments within this context in their public statements. For example:

> The National Packaging Covenant is based on the principles of shared responsibility and product stewardship. These same items form a part of our Cadbury Schweppes business principles and the wider concept of Corporate and Social Responsibility ... In 2004 we issued our second CSR report, which incorporated a full Environment, Health and Safety (EHS) Report. This report complements our National Packaging Covenant commitments... (Cadbury Schweppes, 2004, p. 5):

Coca-Cola Amatil talked about their NPC commitments and initiatives in the 'corporate social responsibilities' section of their Annual Report (CCA, 2005, p. 24), in which they emphasise responsibilities to the communities within which they operate: 'We recognise that as a manufacturer of fast-moving consumer goods, we have a role to play in reducing the environmental impact of our packaging on the community' (p. 24).

Interviewees who talked about PS as a social responsibility did so in relation to either ethical considerations or existing corporate policies. One interviewee commented that they have an 'ethical purchasing policy' which means for example, that they can only buy paper sourced from sustainable forestry operations. As he put it, 'that's just part of what we do'. Another interviewee clearly linked PS to the ethical culture of the company:

> I think [this company] has always been involved in responsible programs that went beyond their company to looking at the welfare of their employees, their impact on the community and how they could work in the community and environment. So [product stewardship] was a natural progression I think … it's almost part of the ethics and the behaviour of the company which is why I like working here (Personal communication, Company L).

Another driver for PS which is linked to CSR and corporate citizenship is the need for larger companies to protect their reputation:

> [A]t the end of the day on this issue we are not talking about any regulatory compliance matters. We are primarily talking about corporate reputation, and that's what drives the large companies to undertake product stewardship (Personal communication, Company E).

Corporate reputation is seen as important to maintenance of the company's 'licence to operate' and protection of brand value:

> [This company] has come to understand that product stewardship, if done properly ... can be part of your corporate reputation which goes back to your licence to operate, and that has possible outcomes because you might get licensing and [development] approvals more quickly (Personal communication, Company A).

Sustainability was mentioned occasionally, but mainly in relation to public issues such as fibre supply from forest resources. These companies appear to be particularly sensitive to public and ENGO concerns about biodiversity and sustainability issues in forestry which could have an impact on their raw material supply:

> [W]e go to a lot of effort to train our people and embed [sustainability] in the way we do business. We have to because we've got products, you know some key products like nappies and bath tissue and facial tissue, which take resources from forests. So we have to have some very strong principles, the way we manage those aspects, the resources, energy, water, etc. (Personal communication, Company M).

Several companies talked about their commitment to becoming a 'sustainable business' or to manufacture or supply 'sustainable products' in their public statements, although clearly this means different things to each business. Foster's has a Health, Safety and Environment (HSE) policy which states that 'Foster's Group endorses the principle of sustainable development, making this tangible through environmental responsibility and product stewardship' (Foster's Group, 2004c). Lion Nathan's (2005) environmental policy commits the company to '[w]orking to the principles of sustainability—in the use of our resources and our environmental practices' and there is a page on their website entitled 'packaging sustainability' in which they outline their NPC initiatives (Lion Nathan, 2006). Carter Holt Harvey (2001, p. 7) makes a more ambitious claim:

> Our goal is to be a 'sustainable business' in the widest possible sense of that phrase. Sustainability means using resources as efficiently as

possible, by minimising waste and being unrelenting in our search for
cleaner, greener products and processes.

However, this commitment is qualified by the need for products and processes to meet
financial objectives:

> As a large fibre, vertically integrated company active at several stages
> of the packaging chain, Carter Holt Harvey is committed to the
> concept of 'closing the loop' in the manufacture and recycling of fibre
> packaging. Carter Holt Harvey will continue to focus strategically on
> 'closing the loop' where such opportunities are economically viable
> (Carter Holt Harvey, 2001, p. 7).

A number of companies use the term 'sustainable' in relation to products and packaging
with little or no explanation. Amcor claims that its businesses are 'working with other
industry members to make packaging as sustainable as possible' (Amcor, 2005, p. 21)
while Bunnings is 'working with suppliers to develop sustainable product choices for our
customers' (Wesfarmers, 2005, p. 9). A new 'Sustainability Services' division within Visy
Industrial Packaging (VIP) works with its customers to develop and implement
'sustainable solutions' to packaging problems (Geminder, 2005), but in their case
sustainability is strongly linked to the relatively narrow objective of recyclability. This is
consistent with Visy's traditional focus on recycling[108]. An advertisement in an industry
trade journal states that '... we are committed to sustainable packaging solutions. Our
vision is to ensure that everything we make is 100 percent recyclable within five years'
(*Packaging News,* September 2004, p. 6).

Visy's main competitor, Amcor, has drawn on the sustainability discourse to promote a
different approach: one which shifts the focus away from recycling. This reflects the focus
of PS and the NPC on the life cycle impacts of packaging rather than at end-of-life:

> While momentum on recycling needs to continue, it is appropriate for
> the next phase of the Covenant to incorporate broader sustainability
> issues. Amcor considers consumer education, litter reduction
> programs, environmental management systems development and
> compliance, product redesign (minimisation) and improved inventory,
> logistics and delivery systems are all important areas to be addressed
> by the Covenant in the future (Amcor Limited, 2004a, p. 5).

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[108] Visy Recycling is one of the divisions within Visy Industries and is Australia's largest recycling
company. It is involved in kerbside collection, sorting and reprocessing of both paper and
packaging. Some of this material, mainly paper and cardboard, provides feedstock for other Visy
businesses.

A similar approach is evident in the statement by Unilever Australia that the company 'both globally and locally, is proactive in the environmental area and is particularly committed to sustainable development. We use a *life cycle approach* to assess our overall impact on the environment, enabling us to focus on the areas where we can bring the greatest benefit' (Unilever Australia, 2003, p. 3, emphasis added). They also claim that their approach to environmental issues is 'holistic' (p. 4).

These comments by Amcor and Unilever are consistent with the efforts of industry associations in the 1990s to broaden the debate about packaging beyond recycling. The 'life cycle approach' gives companies greater flexibility in choosing how they will implement PS and takes the emphasis away from waste and litter.

The language of sustainability is used not only by corporate signatories to the NPC. One Federal Government employee also regards the NPC as a sustainable development policy as well as a tool to promote recycling:

> And that's the great thing about the covenant; it's about the business
> of sustainable development. It's about changing the culture in firms.
> Yes, it is aiming to reduce the amount of waste going to landfill and to
> increase recycling as well, but the primary philosophy of the
> Packaging Covenant is to change the whole sustainability of firms
> (Personal communication, Federal Government A).

Many companies appear to regard the NPC and PS as a natural extension of existing environmental policies and practices. The following two companies imply that the NPC is consistent with environmental policies and commitments which were already under way, albeit with improved systems for monitoring and reporting of product-related impacts:

> In line with Bonlac's track record of our commitment to the
> environment, the National Packaging Covenant will play a key role in
> *continuing our commitment to best practice in environmental*
> *management* issues. Hence, Bonlac became a National Packaging
> Covenant signatory in June 2000 (Bonlac Foods, 2003, p. 5, emphasis
> added).

> While we have practiced the philosophy of the [ECoPP] for many
> years the above provides a *formal, documented reference* in our
> procedures (Kimberly-Clark Australia, 2004, p. 4, emphasis added).

These companies imply that PS is little more than 'business-as-usual'. However, several interviewees noted that while the covenant was originally developed to address environmental impacts associated with packaging, particularly at end-of-life, it is helping

to facilitate environmental improvements in many other areas of business activity. The NPC is helping to raise internal awareness about environmental issues and encourage strategic thinking about environmental issues:

> One of the most interesting phenomena that I noticed was people ... using the covenant to drive environmental reforms in the companies that had nothing to do with packaging. So they convinced people in their own companies: 'Oh, we've got to do this water-saving scheme because we're a covenant signatory' (Industry association B).

This highlights one of the benefits of a 'life cycle approach' in packaging policy—it encourages companies to look for opportunities to reduce environmental impacts in all aspects of their operation.

Legal compliance was only mentioned by one packaging manufacturer as a driver for PS, although this was based on a misperception that his company was covered by the NEPM (in fact the NEPM is only directed at brand owners):

> [The NPCC] feels like just an industry body that's just sort of tucked away like a lot of other bureaucracies to do what they need to do or what they've been asked to do and with a lot of money, I mean they've got a lot of money. So its value's unknown. Well the value's just not there for us. It's just not worthwhile. But we're involved because for the most part we have to be because we get threatened with a big stick if we're not (Personal communication, Company J).

Policy processes: institutionalising product stewardship

The analysis in Chapter 5 demonstrated that the concept of PS is being institionalised in companies through a wide range of policies and practices. Earlier sections of *this* chapter highlighted the role of interest groups with competing objectives, and discourses on the perceived links between PS and other business objectives, in driving organisational change. This section goes a step further by examining some of the policy processes and structural changes that are helping to institutionalise PS within leading companies. These include:

- internal 'champions' and cross-functional teams who drive and coordinate PS policy development and implementation;

- allocation of responsibility for PS to functional groups throughout the organisation;

- business systems and procedures which ensure that PS policies are implemented by all staff, particularly for product development.

Leadership, engagement and coordination

The implementation of any organisational change or business improvement program requires a 'project champion' to drive change through the organisation. In the Australian packaging supply chain PS is generally being driven by the NPC contact officer with the support of a project team and senior management staff. The role of the project champion is seen as critical to successful implementation:

> It's all right for a CEO to sign off on a document but it's not much chop if that's where it stops. That's what happens with most companies. They make an executive or a board room decision to do something but they're not good at driving it down or finding a champion. When you start something new like an agreement to change your approach to packaging in response to the covenant, you need to have an internal champion, someone who will see this as their great calling in their career for the next couple of years and will promote it, will teach people, will learn as much as they can and keep pumping information out there so that more and more people in the organisation are aware of it (Personal communication, Company N).

Many interviewees appear to be strongly committed to the NPC and to PS in general and are playing a strong personal role in both establishing new systems and convincing other parts of the business to take action. In other cases it has been a group of committed individuals:

> I would think that probably there are a few key people in [the company] that have taken the lead in this area ... I don't think the leaders necessarily come from top management. It's come from that smaller group of people who have actually been involved in the development of the company's action plans and reporting against those action plans and having the interface with government, having the interface with some of the NGOs. I think that is where there has been a bit of drive (Personal communication, Company B1).

> It's worth pointing out that internally there have been a number of passionate people fulfilling the vision. That's been a key thing. [This company] has attracted and kept a lot of people who are prepared to go above and beyond the call of duty to do this work (Personal communication, Company A).

Another company already had an environmental manager to look after compliance issues, but created a new position to manage NPC negotiations and commitments, and this person

was also appointed to the company's executive committee. This has given the NPC and PS a higher profile within the company:

> [T]hey appointed me to this position because prior to that they did not have someone here in quite this role ... I think appointing me to the role and having that role as part of the executive has enabled me, in the work that I do, to raise or elevate some of the stuff at the senior management level across the business, and to be frank, that's not to say it's top of mind or on the top of the agenda, but it is *on* the agenda and I am raising issues and the executive is asking a lot more questions than they were two or three years ago ... So I think there has been some incremental change but you wouldn't say that there has been a revolution (Personal communication, Company B1).

As already discussed, NPC contact officers have to ensure that PS policies are implemented across a number of functional groups within the organisation. In some cases the process of engagement with these groups is relatively informal, for example one interviewee noted that:

> We have networks. We don't do a lot of formal committees. I work across the business and talk to each part of the business, and do what I think is achievable. So we haven't caucused the business and asked people on sites 'what do you think?' (Personal communication, Company E).

In contrast, some companies have established more formal cross-functional teams to coordinate PS and NPC compliance. While the NPC contact officer within Huhtamaki is their corporate marketing manager, a Packaging Covenant Task Force which was established to coordinate the company's response includes the general manager of each division along with a technical manager, sales and marketing manager, process development manager and corporate procurement manager (Huhtamaki, 2005). Another company has a formal process for engaging not only their NPC committee, but everyone from general managers to operational staff in the preparation of their NPC report. According to the corporate affairs manager this is the result of an evolutionary process:

> If you go back and look at the first year ... it was basically [the environmental coordinator] and me. By the second year we had a committee. For the past three years, [the company] has taken the approach that the report is not just a covenant report, but an environmental report as well ... So across the group you would be talking about 200 people contributing data into that report (Personal communication, Company A)

Cross-functional committees are also involved in the product development process, and increasingly these committees are addressing environmental issues as a routine practice. While discussing a recent case study which achieved significant environmental gains, one interviewee noted that:

> [F]or something like that to come off, first of all you need all of [the company] synchronised: marketing, packaging, the mill, the engineers and then you need your supplier synchronised ... underpinning all this is just the strong cross-functional partnership between [the company's] packaging and marketing operations teams and carton suppliers. We have development meetings every month and we focus on material reduction, recycled content, carton property optimisation and costs savings ... recycling logos and consumer information (Personal communication, Company M).

In at least one company the process of developing and implementing NPC action plans has promoted better internal communication, not only between environment and product development staff but also with engineers and operators on the factory floor:

> There is an interaction there that wasn't there before between the packaging development department, which is part of R&D, and the guys in the factories ... They all speak gobbledygook, but they're all starting to feel like they're together. They're interacting a lot more than they did (Personal communication, Company N).

Responsibility and accountability

Several interviewees acknowledged that PS will only be fully implemented when key people across the business are responsible and accountable for PS, but that this process is still at an early stage. In several companies the NPC is no longer just a responsibility of environment or corporate affairs staff; it is starting to be integrated into systems and responsibilities across the organisation. This makes PS a business issue rather than an environmental or stakeholder management issue for the company:

> We are also keen to get a bit more buy-in and engagement across the businesses as well. I think one of the challenges, to some extent, one of the risks I suppose of appointing people like me and [the environment manager] is that people can say, 'Well the National Packaging Covenant is important but you handle that, environmental issues, product stewardship, yes it all sounds good but too hard for us, that's what you're employed to do'. And what I have been saying at the executive level, particularly in the marketing and technology group, is that there needs to be more buy-in from the key account

people, from the product design people within the businesses (Personal communication, Company B1).

Most of the interviewees noted that there are significant challenges to driving change through large organisations because of the need to raise awareness and educate a diverse range of people. Even after PS has been institionalised through business systems and procedures (see below), there are challenges to getting people to implement them:

> You can knock up a plan but you have to get people to actually do it and record stuff (Personal communication, Company N).

> We have the tools available. The biggest barrier is actually getting everyone going through the processes (Personal communication, Company O).

Business systems and procedures

The implementation of PS often involves negotiating between groups with allegiances to different stakeholders, and the outcome of this process will depend on the relative power and influence of each group. The only way to ensure that PS is institutionalised is to ensure that it is embedded in everyday business systems and procedures. As one interviewee noted, this ensures that people are accountable for PS outcomes:

> There needs to be more explicit accountability given to people across the business for this sort of stuff ... at the end of the day what all this is about is developing systems and an approach which is integrated into your business process. We do it in other areas and we have to start to do it much more systematically around product stewardship (Personal communication, Company B1).

Most companies have implemented systems to ensure that the Environmental Code of Practice for Packaging is followed to some extent in the new product development (NPD) process, although these range from a minimalist position (reporting requirements only) to a more formal process linked to existing procedures. For large companies with formal NPD procedures, the integration of PS in decision making is relatively straightforward:

> The approach that I've mentored through here has been to look at the decision framework. Do we have one? Yes, fortunately like most major corporations there is a very deliberate decision framework relating to projects and marketing and how you create a product etc. There are gates along the way for where key decisions are made. So what you need to do is use that system because it takes out the conflict between personalities. So we've done that here (Personal communication, Company N).

Another large brand owner recently established a company-wide packaging development process, for which the initial impetus was the need to ensure that their DFE commitments under the covenant were implemented. Before this packaging development was undertaken within each business unit; there was no standard process for design in general, and environmental design in particular. The Environmental Code of Practice for Packaging has now been formally integrated in their NPD process and all brand managers and technologies are required to use it to identify environmental impacts and opportunities for improvement. If a packaging redesign results in a negative environmental impact, for example if the new package is less recyclable than the previous one, the project is 'elevated' for review by a senior manager:

> It's very easy to do mandates. I know that over the years the business has mandated many checkpoint systems for environment, but none of them have succeeded. Why haven't they succeeded? Because there was no system for elevation, firstly if it wasn't done, or secondly if there was a negative impact (Personal communication, Company O).

The integration of PS policies and practices within the NPD process in some companies is giving packaging and food technologists the confidence to speak out when a product is contrary to environmental requirements, or if there might be a more environmentally friendly option available:

> [The technologists] still have to have a bit of argy-bargy with people in marketing who have other aspects that they're interested in, but overall they're finding it quite simple to be able to report accurately and make determinations about material choice, shape and design of packaging, what is going to happen to it in the after-market, will it hit the litter stream, how will it cope in the post-consumer stream, all those aspects. And they're quite excited actually, because it's brought a new dimension to design for them. And they like it (Personal communication, Company N).

> Environment has pretty much been integrated in the decision-making process at every level of the company so we have many management teams and product development teams from the food point of view that don't even think about the product unless the packaging part is considered with that. The packaging guys are aware of it now and are happy to put their hand up and say, 'No, we can't do that because it doesn't meet these [environmental requirements]'. So that's definitely a change in process (Personal communication, Company H).

Packaging technologists tend to be more supportive of DFE than the marketing group, as long as they understand what is expected of them and can draw on expert knowledge to help them to evaluate alternatives:

> When it comes to taking a stand, particularly on the environment, it can be quite difficult, which is why we desperately needed a tool like PIQET[109] to provide data, to give it credibility, and that's what technical people need in order to really understand it and make a comment, but we've actually said to them, 'Now, you guys are the ambassadors so you have to push change'. The earlier you get involved in PIQET and the NPD process the more likely you are to make a difference. We keep talking about that when we communicate—'you can make a difference' (Personal communication, Company O).

However, even with systems in place there is still potential for conflict between competing objectives. According to a number of interviewees, packaging objectives which are never compromised include product protection, quality and safety, but trade-offs are sometimes made with objectives such as speed-to-market, cost, aesthetics and supply. These are negotiated internally within the company and with customers:

> When we've wanted to introduce recycled content, we had to convince [marketing] that the graphics and the presentation were not going to be diminished ... We've consistently proven to marketing that we project-manage to their timeline and we give them print quality and leading edge print quality (Personal communication, Company M).

> In some cases companies will pay more. We've been pretty lucky because over the past couple of years we've been able to make decisions where we've sacrificed some savings to achieve an environmental benefit ... We're at the point now though where that is going to be difficult. So if for example we want to source sustainable fibre, FSC [Forest Stewardship Council] certified fibre, there is going to be a cost impact. So it will become a timing issue—when can we do that so that the cost impact will be less felt by the stores, because that's ultimately where it's going to be felt (Personal communication, Company H).

While lightweighting is a 'win–win' initiative because it saves money and environmental impact, more significant changes are harder to implement. One marketing manager commented that customers are often reluctant to change their packaging for environmental

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[109] PIQET is the Packaging Impact Quick Evolution Tool developed by the Sustainable Packaging Alliance in Australia (http://www.sustainablepack.org/research/subpage.aspx?PageID=10&id=9, viewed 8 April 2008).

reasons. As a result, he always tries to sell environmental innovation to them by highlighting the commercial benefits:

> It's functional ... still works, but they've been stuck in this groove and they find it really hard to get out of the groove regardless of what benefit it has to the environment or to their own submission for the Packaging Covenant. We found it hard to influence, so we've had to turn it into a commercial reality as well and say, 'If you use this then it's easier to decorate, it's lower cost in the long run to transport, it packs better, you get better market share' (Personal communication, Company J).

The environmental manager for a major supermarket pursued a similar strategy in trying to convince senior managers of the need to introduce reusable shopping bags:

> Shopping bags is an interesting one. They had political pressure, consumers, and in the end I think we were able to convince them that there was money in it for them. That then allowed them to consider the product stewardship issues ... Once you reduce the cost of single-use bags significantly, and even produce profit by selling reusables, there then was absolute interest, more so than environmental (Personal communication, Company G).

These examples, combined with the earlier discussion of business discourses about PS, support the conclusion that companies are trying to reconcile competing stakeholder demands by searching for 'win–win' solutions. Most of the projects listed in NPC action plans and reports achieve both environmental and business objectives, such as lightweighting of packaging, use of recycled materials, more efficient transport, and water and energy efficiency programs. Environmental initiatives which require a trade-off with other business objectives, such as cost or quality, may be considered as a result of PS policies but are less likely to be supported by key groups such as marketing.

Company characteristics: location, size and ownership

Global businesses and location of head office

The literature review suggested that the location of a company's head office would influence corporate responsiveness because of the different approaches to CSR and product responsibility which are evident around the world. To investigate this for the current research, average PS responsiveness scores were calculated for companies in four regions: Australia, the Asia–Pacific region, Europe and the US (Figure 25). Companies

from the US were found to be the most responsive (1.7), followed by Europe (1.4), Australia (1.1) and the Asia–Pacific region (1.1)[110]. However, these results need to be treated with caution because of the very small sample size for regions other than Australia.

Figure 25: Average responsiveness scores by location of head office[111]

(The number of case studies is shown in brackets)
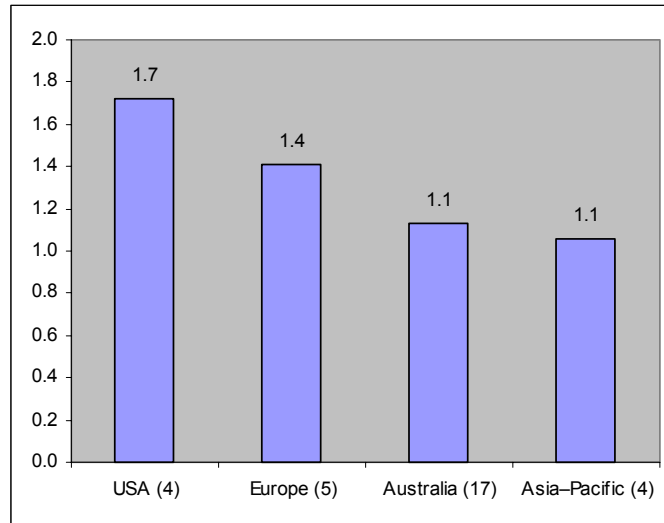
Source: Evaluation of company reports

The high scores achieved by US companies are consistent with international comparisons in the literature. For example, Matten and Moon (2004) observed that, while European governments generally play a prominent role in controlling the social impacts of business, the institutional environment in the US favours voluntary initiatives over regulation[112]. However, Europe has a stronger tradition of CSR than Australia, where debates about corporate citizenship and social responsibility have been more recent. One packaging manufacturer commented that European companies tend to be more responsive:

> There are some large multinationals who I believe are good corporate citizens— Unilever, Nestlé—who have this European corporate

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[110] Three of the four companies in the Asia–Pacific region are located in New Zealand and one in the Philippines.

[111] Numbers have been rounded to one decimal place. Actual figures for Australia and the Asia–Pacific region are 1.13 and 1.06 respectively.

[112] Matten and Moon did not discuss PS specifically but it falls under the general category of voluntary CSR initiatives.

culture which is flowing back with the due processes they need to
follow. I think the [large Australasian companies] are just ignorant,
possibly due to being parochial (Personal communication, Company
I).

Average PS responsiveness scores were also calculated and compared for transnational
and local companies (Table 31). For the purpose of this analysis, TNCs are defined as
those with operations outside Australia *and* New Zealand because of the similar
institutional environments in these two countries. Of the 17 companies based in Australia,
ten only operate in Australia and New Zealand and the remaining seven have
manufacturing facilities in other parts of the world. The average responsiveness score for
TNCs was 1.4 compared to 0.9 for local companies.

Many companies that operate in a global market had adapted to the requirements of the
European Packaging Directive and other packaging regulations before the NPC was
introduced to Australia. As a result they already had some systems in place to measure and
manage packaging waste:

[This company] operates in a global market ... And they have to reach
all global standards, particularly European standards, which are held
as the global benchmark for food contact and the like. So, on that side
it follows world trends very closely, including take-back legislation
and end-of-pipe, as well as with things like toxic materials and
pollutants (Personal communication, Company A).

One interviewee noted that his company is trying to implement a packaging program
which meets environmental management standards and regulations for packaging in
different markets by 'doing the best thing we can do'. The most straightforward approach
for companies such as this is to develop a common approach which meets best practice
requirements around the world:

Getting the knowledge of how each of these [policies] works is really
hard, so your best bet is to start at the top and say, 'What is the best
thing we can do?' The best thing they can do initially is to set up
policy and then try to drive it down into procedures and practices and
actions, and educate as much as they can along the way (Personal
communication, Company N).

Table 31: Average responsiveness scores for transnational and local companies
(The number of case studies is shown in brackets)

Company by type	Responsiveness score
Transnational operations (20)	
Amcor Australasia	1.8
Coca-Cola Amatil	1.4
Foster's Group	1.8
Visy Industries	2.0
Goodman Fielder	0.7
Qenos Pty Ltd	0.9
Dulux	1.4
Carter Holt Harvey	1.0
Huhtamaki Australia Pty Ltd	1.2
ACI Operations Pty Ltd	1.2
Nestlé Oceania	1.9
National Foods	1.6
Cadbury Schweppes Limited	1.7
Kimberly-Clark Australia	2.0
Unilever Australia Ltd	1.0
IBM Australia and New Zealand Limited	2.2
George Weston Foods Limited	1.2
McDonald's Australia	1.4
Fisher & Paykel Appliances Australia ltd	0.9
Bluescope Steel	1.1
Average— transnational operations	*1.4*
Australia/NZ operations only (10)	
Woolworths Limited	1.1
Coles Myer Limited	0.9
Metcash Trading Limited Australasia	0.8
David Jones Limited	0.4
Bunnings Group Limited	0.7
Sugar Australia	0.8
Inghams Enterprises Pty Limited	1.0
Murray Goulburn Co-operative Co. Limited	0.6
Bonlac Foods Limited	0.7
Lion Nathan Australia	1.7
Average—Australia / NZ	**0.9**

Source: Evaluation of company reports

Subsidiaries of TNCs based in Europe and the US are able to draw on support from their corporate head office for initiatives being implemented in Australia. This gives them an advantage over locally–based companies which have had to develop all of their own programs to meet NPC requirements. One interviewee works for a US-based company which has had an environmental policy in place since 1971 and a PS policy since 1991. As a result, they already had good supply management programs in place and detailed information available on the environmental impacts of their packaging:

> Because a lot of good work is done at a global level, I'll always be communicating with my corporate team leader that's involved in packaging issues at a global level ... In Europe you have to report to government on the amount of packaging that you're importing and things like that, the amount of materials. Well, that's helped me at a local level because I'm able to link in to that, that good work that's been done in the past and use that to report the amount of packaging in Australia as well. So that's been really good. There's a lot of work that's gone on in regards to databases and providing information about the quantity and the types of packaging (Personal communication, Company L).

The information-sharing which takes place in this company is consistent with the observation that TNCs are characterised by increasing mobility of firm-specific resources and capabilities across national boundaries (Dunning, 1997). Resources and capabilities to support product responsibility programs are shared within global companies and this is helping to institutionalise PS in Australian-based subsidiaries.

One of the disadvantages of being a TNC based overseas is that opportunities to influence packaging design may be more limited than they are for Australian-based companies. Nevertheless, local subsidiaries have some ability to influence global packaging designs in order to meet NPC requirements:

> One of the things that has resulted from the covenant ... has been that we've heightened the awareness internally in Australia about what is going on, but we have a global corporation, so quite often they will say, 'This is the product you're going to produce and this is what its going to look like'. In the past it's been a case of 'how do we make the machine spit this thing out?' Now we're saying, 'Hang on, it doesn't meet local standards. We've just run our assessment system over it and it doesn't meet the ECoPP. What are you going to do about it?' So we pass the decision back to global ... You actually do have a chance to get them to change their approach (Personal communication, Company N).

Company size and profile

The corporate case studies for this research were deliberately selected because they are amongst the largest companies in each sector of the packaging supply chain. It is not possible therefore to reach any conclusions about the PS responsiveness of small-to-medium size companies. However, the results of the evaluation suggest that with the exception of the major two supermarkets, responsiveness increases with size. The largest and the smallest companies in the group were found to be the least responsive (Figure 26 and Appendix 6). The increase in responsiveness between the smallest companies (with sales of less than $1 billion) and those with sales up to $3 billion is consistent with the literature on CSR, which suggests that larger companies tend to be more responsive for reasons which are linked to both capacity and public profile. Smaller companies generally have fewer resources, both human and financial, to devote to 'non-core' activities (e.g. Buehler and Shetty, 1975; Labatt, 1997).

Figure 26: Average responsiveness scores by size
(The number of companies is shown in brackets)
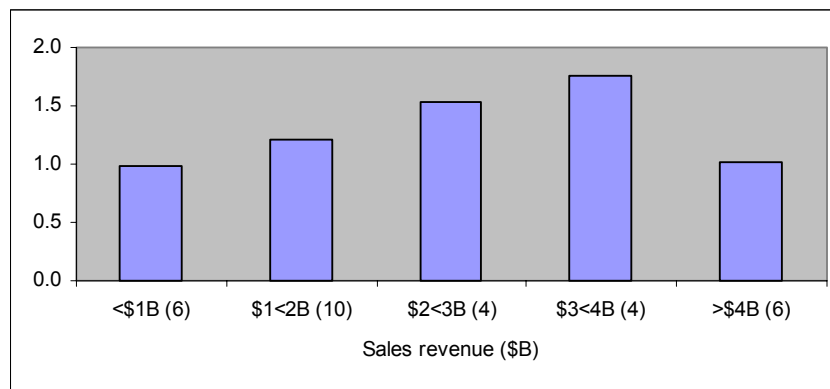
Source: Evaluation of company reports

While the lower scores for the largest companies (with sales of over $4 billion) appear to be an anomaly, this category includes four of the retailers—Woolworths, Coles Myer, Metcash and Bunnings. The low average score for this group could therefore be linked to institutional factors influencing the performance of the retail sector rather than company size.

Responsiveness also appears to be linked to the profile of large TNCs such as Nestlé and McDonald's, which have been the subject of ENGO campaigns in the past. This was noted by several interviewees including this manufacturer:

> McDonald's is a good example. They've been offered products made with paper from companies that don't have a very strong environmental background and McDonald's have decided that they won't put themselves in that position because of their own environmental policies. So therefore that gives us strength in the relationship with McDonald's because they know for the last 25 years or 30 years, we can show them that we've been buying paper from companies that have had the environmental credentials. I guess it's been a subconscious thing with very large organisations like McDonald's because they've been more exposed to public scrutiny than most others (Personal communication, Company J).

Many of the interviewees framed PS as a strategy to protect their reputation because they believe that their size and public profile make them vulnerable to criticism if they do not meet government, ENGO and consumer expectations about packaging. This suggests that small-to-medium size companies are likely to be less responsive to the NPC. One interviewee noted that 'the only problem we see right now is that ... the top 20% of the industry does the bulk of the work' and is having to mentor the smaller companies:

> So the signatories, they've been quite receptive. We unfortunately do deal with a lot of smaller manufacturers who have no idea or understanding about this activity. Where we get into those situations, we're very much a helper to those smaller businesses where we may say, 'Look, we're looking at this for this reason'. In most cases as a corporate brand controller, we may say, 'Well we've got a relationship with Visy Board or Amcor or whoever, please go and talk to them about lightweighting' (Personal communication, Company K).

In this person's view, more specific tools need to be developed for small-to-medium size companies to encourage them to implement the requirements of the NPC, based on the knowledge gained by the larger companies.

Ownership

Most of the larger companies in the packaging supply chain are publicly listed corporations, with the notable exception of Visy Industries, which is owned by the Pratt family. Other forms of ownership include cooperatives (Murray Goulburn and Bonlac), franchises (McDonald's) and joint ventures (Qenos and Sugar Australia). Private

companies were found to be more responsive than public corporations, scoring 1.5 and 1.3 respectively (Figure 27 and Appendix 7). The 'other' group of companies achieved a lower average score (0.9).

Figure 27: Average responsiveness scores by type of ownership
(The number of companies is shown in brackets)
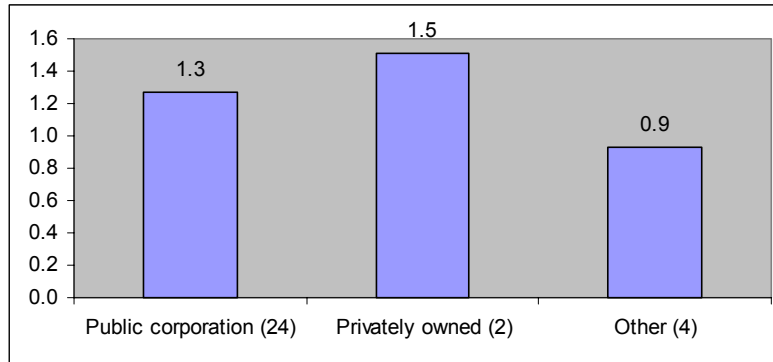
Source: Evaluation of company reports

These results appear to contradict the findings of other research that corporate responsive to CSR increases with the number of shareholders (Buehler and Shetty, 1975), which would suggest that large public corporations should be the most responsive, followed by cooperatives and then private companies. However, the high level of responsiveness of private companies in this evaluation may be due to the very small number in the sample and the high individual score achieved by Visy (2.0). One manufacturer commented that, as a publicly listed company, they had less freedom than private companies to implement PS policies:

> And when you think about it, that whole profit thing and managing the expectations of shareholders and the market is a huge issue for a publicly listed company... (Personal communication, Company B2).

As a result, no definitive conclusions can be drawn about the impact of company ownership structure on PS responsiveness.

Conclusion

This chapter set out to investigate the institutionalisation of PS at a micro level by asking the question: *How and why are individual companies implementing product stewardship?*

The first step in answering this question was to identify the functional groups within the firm and their interests in, and influence on, PS strategy. Each of these groups has allegiances to external stakeholders at a meso- or macro-level that influence the willingness and ability of a company to implement PS. The literature on CSR and related concepts commonly refers to the need to achieve 'balance' between competing stakeholder interests (Schwartz and Carroll, 2008), and stakeholder salience theory suggests that companies are more likely to respond to stakeholders that are critical to the success of the firm (Clarkson, 1995; Hill and Jones, 1992; Mitchell *et al.*, 1997). However, stakeholder theory is based on an assumption that companies act as a single decision-making body and tends to ignore the internal political processes that influence managerial responsiveness. These were found to be important to the approach taken by companies to PS for packaging.

Product development and marketing are the most challenging aspects of PS because they often involve trade-offs between competing stakeholder demands, including the environmental requirements of the NPC and the demands of customers for innovative or lower cost packaging. The multiple demands of stakeholders define a company's 'licence to operate' (Gunningham *et al.*, 2003) and sometimes these have different implications for packaging strategy. One of the ways that companies are dealing with potential conflict is to link PS to core business objectives, such as efficiency, cost reduction, reputation management and the search for new business opportunities. NPC coordinators are able to 'sell' PS internally by promoting solutions that achieve both environmental and commercial outcomes. Strategies that generate 'win–win' outcomes, for example lightweighting of packaging, have been relatively easy to implement in many companies. Other strategies, such as design for recycling or use of FSC-certified fibre, can involve trade-offs with other objectives such as cost and performance. Where conflicts such as this do exist, the competing expectations of stakeholders are reflected in the different positions taken by functional groups on PS policy issues. The relative power and influence of these groups in internal negotiations about packaging policy is linked to the perceived salience of their key stakeholders. For example, marketing tend to have the most influence over packaging design because their views tend to reflect the interests of their customers, one of the primary stakeholder groups for any business. Government agencies and the NPCC have some influence on PS strategy because of the legal requirement for brand owners to

participate in the NPC and the perception by many companies that the NPC is preferable to alternative policy approaches such as CDL. However, the salience of government agencies and the NPCC on this issue is relatively low compared to that of customers. This is because customers have the attributes of legitimacy, power and urgency (Mitchell *et al.*, 1997). Governments are regarded as legitimate, and through the NPEM have the power to force compliance with the PS requirements of the NPC, but according to many interviewees have not demonstrated any willingness to do so. As a result, their demands and those of the NPCC appear to be less urgent.

Strategies which are being pursued by companies to institutionalise PS within everyday practice and to minimise any potential conflicts include: the appointment of a project champion; the establishment of a cross-functional project team; the allocation of responsibility for PS outcomes to all relevant functions across the organisation; and the integration of PS within existing business management systems. These are consistent with recommended strategies in the CSR literature. For example, Ackerman and Bauer (1976) suggested that institutionalisation requires the articulation of a policy by senior management, recognition of a social issue in business plans, allocation of responsibilities, the design and use of systems to monitor performance and the management of careers and incentives to shape the decision-making process.

One of the organisational characteristics which appears to have influenced corporate responsiveness is company size, but this may not be due to the additional resources available to large companies. Other factors appear to be at play, such as location of the corporate head office and the link between company size and public profile. Large companies with well-known brands try to protect their corporate reputation by responding to government and ENGO expectations. Many of these companies are also subsidiaries of companies based in Europe or the US and are therefore expected to meet corporate PS policies which were in place well before the NPC. These companies tend to be driven by an institutional environment in their home countries which support and encourage CSR policies to a greater extent than in Australia. They also have to meet PS or EPR regulations for packaging in many parts of the world, particularly Europe, which means that product responsibility has already been institutionalised through corporate management systems. The knowledge and systems which these companies have developed to manage product–related environmental impacts are being transferred to local

subsidiaries, and in the process helping to institutionalise PS in the Australian packaging supply chain.

Chapter 7

Discussion and conclusion

Packaging is ubiquitous in developed economies. While 'barely perceptible' as a commodity in its own right it supports the distribution, sale and consumption of almost every other commodity, from industrial raw materials and components through to food, beverages and a multitude of other consumer products. It also generates social costs—financial, environmental and aesthetic. From a life cycle perspective these are generated during the extraction or harvesting of raw materials, during manufacturing and distribution, and when packaging is finally discarded in landfill or as litter.

ENGOs and local government associations in Australia have argued for over 30 years that packaging needs to be regulated to control its social costs. In particular, they want legislation that would force packaging manufacturers and their customers, the brand owners, to take greater responsible for the recovery of waste. In response, industry associations and their members have promoted product stewardship, the principle that companies should assume a certain amount of voluntary responsibility for the environmental impacts of packaging over its entire life cycle. They argue that corporate responsibility for packaging recovery at end-of-life is limited because this is the proper responsibility of local government.

However, there are continuing debates in Australia about the effectiveness of PS in promoting corporate responsibility and reducing the impacts of packaging. The issue has particular urgency at the present time because packaging policy will be considered once again by the national ministerial council (EPHC) in November 2009. Following the mid-term review of the NPC, government and industry representatives are proposing a continuation of the Covenant for an indefinite period. The potential benefits of complementary policy mechanisms, including CDL, are also being evaluated.

This research has focused on corporate responsiveness to stakeholder concerns about the social impacts of packaging, within the broader context of debates about the packaging problem and policy solutions. The principal research question which guided the analysis

was: *How and to what extent has product stewardship been institutionalised within the Australian packaging supply chain?*

Chapter 2 reviewed existing knowledge about product-related environmental policies, including PS and EPR, as well as related initiatives such as voluntary environmental agreements, DFE and CSR. The extensive literature on CSR provided a particularly useful framework for this analysis because it focused on questions that are relevant to the study of PS, including the nature and extent of corporate responsibility for social issues, the regulation of social impacts, corporate responsiveness and the evaluation of corporate social performance. The review identified significant differences between writers with a neo-liberal, managerial or institutional perspective and concluded that insights from managerial and institutional research could be usefully combined to develop an analytical framework for the remainder of the thesis.

This framework, which was further developed in Chapter 3, is based on the assumption that corporate responsibility and responsiveness cannot be studied in isolation from the broader institutional environment within which companies operate. This includes the market economy, formal governance mechanisms, the normative role of industry associations in creating a new 'industrial morality' (Gunningham and Rees, 1997) and the expectations of stakeholders. The analytical framework involved a multilevel analysis of PS performance:

- at a socio-political (macro) level where PS is being institutionalised through the interaction of the state, industry associations and ENGOs in discursive and policy processes;

- at an industry sector (meso) level, where PS is being institutionalised through changes to corporate language, policy and practice;

- at a company (micro) level, where competing interests and objectives for products are resolved by institutionalising PS in business strategies, structures and processes.

Four interrelated factors were also identified to guide the analysis at each of these levels:

- interest groups with an influence on the social construction and implementation of PS;

- packaging and PS discourses invoked by these groups to support their interests and policy beliefs;

- policies and policy processes that translate these discourses into techniques of control;

- company characteristics that mediate corporate responsiveness.

The research findings and their implications for the primary research question are discussed below.

Interest groups

The analysis of interest groups focuses on the interests and policy beliefs of actors who influence the design and implementation of packaging policy and practice. These actors collectively make up the 'organisational field' within which PS is being institutionalised. In summary, it is argued that industry associations and companies have promoted self-regulation through PS as a solution to ENGO and government concerns about the social impacts of packaging because, from their perspective, it is preferable to state regulation. It has been institutionalised in public policy through voluntary agreements—most recently the NPC—despite strong and consistent opposition from ENGOs and local government associations. However, its institutionalisation within the packaging supply chain has been influenced by power relationships and perceptions of corporate self-interest, which vary between industry sectors, companies as a whole and the functional groups within them.

At a macro level, debates about the packaging problem and corporate responsibility were initiated in response to the introduction of non-refillable containers for milk, beer and soft drinks in the 1960s and 1970s. The benefits for beverage manufacturers, packaging suppliers and retailers were significant: non-refillable containers reduced costs and increased sales. The move was opposed by ENGOs and local government associations because it shifted waste management costs from industry to local government and created additional environmental impacts, and they argued for increased state regulation. However, beverage and packaging manufacturers, with the support of trade unions, promoted voluntary PS programs as an alternative to more regulated approaches such as CDL, which would have threatened industry profitability and employment levels. In the

late 1970s they created a new political actor—LRA/BIEC—which became an influential part of the policy process at a state and national level.

The negotiation of the NPC in the 1990s, which built on voluntary initiatives by the beverage industry, brought new industry players into the organisational field. Most importantly, it involved industry associations and companies from the food and retail sectors, who tended to support a narrower definition of corporate responsibility for packaging than the beverage industry. Groups such as the Australian Supermarket Institute (ASI) participated in packaging policy debates as 'rejectionists' (McEachern, 1991). They originally opposed the NPC on the basis of their policy beliefs about the social control of business, the seriousness of the packaging problem and corporate responsibility. However, packaging and beverage industry associations—the 'accommodationists' (McEachern, 1991)—eventually convinced them to support voluntary PS to avoid legislation. This is consistent with DiMaggio and Powell's (1991a, p. 31) observation that 'the acquisition and maintenance of power within organisational fields requires that dominant organisations continually enact strategies of control, most notably through either the socialisation of newcomers into a shared world view or via the support of the state and its judicial arm'. Another new political actor that emerged in 2004 during the negotiation of NPC Mark II—the Boomerang Alliance—increased the influence of ENGOs but was unable to shift policy outcomes in any substantial way.

The institutionalisation of PS at a macro level was strongly influenced by the 'institutional work' practices (Lawrence and Suddaby, 2006) of industry associations with considerable lobbying power. The ability of other interests, such as ENGOs and local government to achieve state regulation, was limited by the federal system of government in Australia. The states have constitutional responsibility for environmental management and have been unable to agree with each other and the federal government on the need for a national regulatory approach. PS is now 'taken for granted' by most stakeholders, particularly in government and industry, as the basis for corporate social responsibility for packaging.

At a meso level the research examined the interests and power of companies at each stage of the packaging supply chain: raw material suppliers, packaging manufacturers, packaging fillers (brand owners) and retailers. Each sector has an interest in packaging and an obligation under the NPC to implement PS where relevant to the nature of their

operations. However, brand owners are particularly important to the success of the NPC because of their relative size and influence on design and consumption. Within this group, companies in the beverage industry have the strongest interest in self-regulation because they wish to avoid the direct financial costs associated with CDL. Retailers, particularly in the highly concentrated grocery market, also have a strong influence on packaging design because of their dual role as both retailer and brand owner. As retailers they can influence PS outcomes through their procurement policies, particularly for secondary (transport) packaging, while as brand owners they have direct control over both primary and secondary packaging.

At a micro level, the focus is on the influence of internal groups and their stakeholders on corporate PS strategies. Functional groups, including marketing, product development, environment and corporate affairs, all have roles to play in developing or implementing PS. However, they have different levels of power and influence over packaging and environmental strategies, which are linked to their role in the company and their relations with external stakeholders. This research supports Mintzberg's (1983) observation that corporate decision making is a political process involving coalitions of interest both inside and outside the organisation. People employed in the environment or corporate affairs groups within a company tend to focus on the expectations of government agencies (regulatory compliance), ENGOs and other non-commercial stakeholders. Some have a strong commitment to environmental objectives, but their primary goal is to protect the company's reputation by meeting their perceived legal and social responsibilities. For most companies in the packaging supply chain, this means compliance with the NPC. However, the most salient stakeholder for corporate decision making about packaging is the customer, namely the brand owner (for packaging manufacturers), the retailer (for brand owners) and the consumer (for retailers). This means that the marketing group has more power over packaging decisions than the environment or product development groups. Stakeholder salience theory (Mitchell *et al.*, 1997) suggests that customers are highly salient because they possess the attributes of power, legitimacy and urgency. The willingness and ability of packaging manufacturers to respond to PS is often limited by a lack of commitment from their customers—the brand owners—although there is some evidence from this research that the commitment of brand owners is increasing as a result of the NPC. Retailers remain relatively uncommitted and are driving changes to secondary

packaging which increase rather than decrease the total amount of packaging material used for product distribution.

Federal and state governments are also regarded as important stakeholders on PS issues but their influence on corporate decision making (relative to customers) is limited. They are legitimate and powerful stakeholders for a number of reasons, including their power to force brand owners to participate in the NPC through the NEPM. Non-brand owners also participate in the NPC because cooperation with governments is seen as important for corporate reputation. However, the overall influence of the NPC (and therefore government stakeholders) on corporate responsiveness appears to be limited because of a perception within industry that state governments are not committed to enforcing the NEPM. Therefore governments do not have a high level of 'urgency', i.e. their claims as stakeholders do not call for immediate action (Mitchell *et al.*, 1997). Governments appear to have had stronger influence on decision making within beverage companies and their packaging suppliers because of regular proposals by politicians and government agencies to introduce CDL (most recently by the WA Government, the Family First Party and the Australian Senate, see Edwards, 2005; Fielding, 2008; SCECA, 2008).

Packaging discourses

The analysis of packaging discourses focuses attention on the way that actors group around particular story-lines which they use to define the policy problem and policy solutions (Hajer, 1995b). In summary, it is argued that the discursive struggle to define the packaging problem and policy solutions has largely been won by industry associations and companies, who have framed the problem in terms of 'life cycle environmental impacts' and support voluntary corporate 'stewardship' or shared responsibility for packaging. This discourse promotes only limited corporate responsibility for the collection and recycling of post-consumer waste. Instead it focuses on a company's 'sphere of influence', including supply chain management, cleaner production and product design. Companies are therefore able to focus on PS strategies which improve efficiencies and reduce cost, while simultaneously promoting these initiatives to external stakeholders as socially responsible and to internal stakeholders as core business practice. This has supported the institutionalisation of PS in the packaging supply chain because, as Holm (1995, p. 63)

observed, the stability of an institution increases when it becomes embedded in 'mutually reinforcing systems of practices, interests and ideas'.

At a macro level industry associations and companies have achieved a number of victories in the battle to control perceptions of the packaging problem. Their first achievement, during the 1970s and 1980s, was to shift the focus away from non-refillable packaging—the major concern of ENGOs—to the impacts of packaging on household waste and litter. On this basis they convinced state governments that the solution was to establish recycling and anti-litter programs rather than to re-establish refill systems for beverage containers. Their second achievement, during the 1990s, was to shift the problem once again, this time to the life cycle impacts of packaging, and to propose a solution based on 'shared responsibility'. This established PS as the normative framework for the NPC and allowed companies to focus on supply chain and in-house impacts as well as waste at end-of-life. The life cycle approach meant that they had *some* responsibility to support kerbside collection and litter reduction programs, but in a support role to local government. As far as end-of-life impacts were concerned, industry groups successfully argued that their primary responsibility was to support reprocessing facilities and markets for recyclable materials, based on 'market realities' rather than ongoing subsidies.

A number of discursive strategies were used by companies and industry associations to promote their interests and policy beliefs. They promoted 'technological rationalism' (Eden, 1999), often dismissing the arguments of ENGOs as 'emotional' and 'uninformed' while promoting their own position as rational and objective. They produced data to support the story-line that packaging only makes up a small percentage of waste and litter, and funded research on the behavioural aspects of littering to support the argument that litter is a 'people problem'. They used the 'life cycle' metaphor to reposition the nature of the packaging problem away from end-of-life waste and towards those activities within the normal corporate sphere of influence.

At a meso level the language of PS and shared responsibility is reflected in corporate communications. Almost all of the companies that were evaluated have expressed a public commitment to PS, albeit with some sectoral differences. The language of packaging manufacturers and brand owners, particularly those in the beverage industry, closely follows that of the NPC. For example, it includes references to PS, a life cycle approach

and shared responsibility. This reflects the strong position taken by industry associations in these sectors in support of PS and the NPC. However, some of the language used by retailers reveals a more limited interpretation of PS, with greater emphasis on the management of in-house waste. This is consistent with the strategy adopted by ASI in policy negotiations. The association tried (unsuccessfully) to limit the involvement of retailers in the NPC and, since its demise, other retail associations have played almost no role in promoting the NPC.

Another feature of many corporate statements is the implication that PS is a logical and natural extension of existing sustainability and environmental programs. This is most evident for the two companies in the chemical industry, Orica and Qenos, who discussed their NPC commitments under the broader banner of product safety and risk management. This supports Coupland's (2003) observation that companies try to construct a socially responsible identity by presenting what they do as uncontroversial. The PS discourse is also consistent with weak concepts of 'ecological modernisation' (Christoff, 2002; Dryzek, 1997; Hajer, 1995b) because it assumes that the environmental impacts of packaging can be addressed without any fundamental change to the socio-economic system. It promotes PS as an extension of 'business as usual' rather than something new and challenging. As a result it has been relatively easy for industry associations to promote PS to companies as the preferred alternative to state regulation.

At a micro level it is clear that NPC coordinators are promoting PS to internal stakeholders by linking it to business objectives such as efficiency, cost reduction, reputation, legal compliance, secure raw materials and market development. For example, vertically integrated packaging manufacturers have established recycling businesses to provide an additional supply of raw materials, while brand owners and packaging manufacturers undertake lightweighting of packaging to reduce raw material and supply chain costs. Most interviewees from industry appear to regard PS strategies as consistent with business improvement goals and a source of innovation and efficiency. Companies with strong corporate sustainability or CSR policies also use these to support the implementation of PS internally as being consistent with corporate values and global commitments.

Policies and policy processes

Policy analysis focuses attention on the institutionalisation of PS through the design and implementation of 'techniques of control' (Hasselbladh and Kallinikos, 2000). In summary, it is argued that packaging and beverage industry associations acted as 'institutional entrepreneurs' (Holm, 1995) in driving the development of voluntary PS agreements in preference to CDL or other forms of state regulation. PS was ultimately embedded within the NPC and became the framework for corporate action. Most of the case study companies are making some systemic changes to the way they manage the life cycle environmental impacts of packaging, most notably through the integration of environmental requirements in design and procurement policies, but the pace of change may be insufficient to satisfy some stakeholder groups. Companies are focusing on initiatives which help to achieve their core business objectives, such as cost efficiency. This is consistent with many writers on CSR who argue—albeit from very different perspectives—that companies should, or do, only implement social policies which support long-term profit maximisation.

At a macro level, two policy coalitions emerged in the 1970s to try to influence public policies on packaging waste. The first of these—the 'self-regulation' coalition led by industry groups—had the most influence because of its economic power and the resources that it was able to allocate to lobbying and voluntary PS initiatives. The second coalition—the 'state regulation' coalition of ENGOs and local government groups—had less influence, particularly in a policy climate which favoured deregulation. ENGOs were deliberately excluded from the policy network which negotiated the NPC. As predicted by Matthews (1988) this was because they were less willing to cooperate with industry and government groups to achieve a consensus outcome and less critical to policy implementation than those in the self-regulation coalition. They were also not as well organised and did not have access to the same level of resources as the industry associations. The advocacy coalition framework (Sabatier, 1991) provided important insights into the policy conflict because it focused attention on the beliefs of groups as well as their power and interests. However, these coalitions operated more like the 'discourse coalitions' described by Hajer (1995a; cited in Fischer, 2003). Coalitions were very informal, and any collaboration on policy proposals, when it occurred, was ad hoc

and did not necessarily involve all of the identified 'members'. Rather, members shared a commitment to common story-lines about the packaging problem, policy solutions and corporate responsibility. ENGOs and most local government associations have always believed that the post-consumer management of packaging is an industry responsibility which they should be forced to accept through legislation. Industry associations, on the other hand, have argued that local government has a legal responsibility for waste management. One of the current challenges for industry interests is the fact that ENGOs, some local government groups (particularly in NSW) and some state and federal government politicians remain convinced that the voluntary approach is not working and continue to lobby for a national CDL scheme. These views are based on policy beliefs which are deeply entrenched and are unlikely to shift, regardless of the results of the mid-term review of the NPC (which were generally positive) and any final decision on extending the covenant beyond 2010.

At a meso level, the evaluation of case studies suggests that companies in the supply chain are responsive to PS but their actions can be categorised as 'compliant' rather than 'progressive' or 'proactive'. They are generally meeting the minimum NPC requirements and 'best practice' environmental management standards and are starting to take a life cycle approach to the environmental management of products and packaging. Responsiveness is highest in operational areas such as supply chain management and cleaner production, and in activities such as product recovery, voluntary environmental programs and communication which involve liaison and collaboration with external stakeholders in government and the community. However, responsiveness to litter management is particularly poor, despite the fact that this issue is a high priority for ENGOs and local government associations and one of the main reasons why these groups support CDL. The average responsiveness score for DFE was also relatively low and most of the examples provided by companies involved lightweighting or recycled content. This is consistent with the emphasis in corporate packaging discourses on efficiency and cost reduction strategies. It also supports the view that companies only pursue social goals that are consistent with financial goals (Pava and Krausz, 1995). Very few companies are implementing environmental marketing strategies that would change the way they position their products and their company. However, the approach being taken by most companies—a more efficient approach to 'business-as-usual'—and the 'invisibility' of

efficiency gains to most consumers and ENGOs, may cause problems for industry associations trying to convince stakeholders that the NPC is achieving real environmental improvements. As one government representative noted, companies may be changing their packaging but this is not obvious when you walk down a supermarket aisle. There also appears to be a significant gap for many companies between their rhetoric about PS and environmental responsibility and their actual implementation of PS policies and practices, which may damage the credibility of the NPC as an effective policy tool.

By examining policy processes at a company level it is possible to gain a deeper insight into the way that environmental strategies, particularly for product development, are being institutionalised within firms. PS presents some important challenges for companies because it has implications for almost every part of the business. Whereas it was once regarded as a responsibility of the environment or corporate affairs functions, many companies are now allocating responsibility throughout the organisation. This is clearly still a 'work in progress' for many companies, with programs under way to inform and educate staff about corporate objectives and their role in implementing PS. It is being supported by the integration of PS policy within existing business systems, for example new product development (NPD) procedures. This is particularly important given that PS strategies such as 'design for recycling' may add to packaging costs.

One response to dilemmas around competing packaging objectives is to ensure that corporate policies, including NPC commitments, are understood by all staff and that there are systems in place to ensure that they are followed. Another is to institutionalise PS through strategies that aim to satisfy multiple stakeholders and competing organisational goals simultaneously. While some companies may be practising 'organisational hypocrisy' (Brunsson, 2002) by trying to satisfy some stakeholders with words and some with action, most companies appear to be selecting strategies that contribute to business *and* environmental objectives at the same time. For example, they tend to focus on packaging design strategies that reduce costs, for example through lightweighting or improved transport efficiencies, and thereby satisfy the expectations of customers and financial market analysts while also promoting the environmental benefits of these outcomes in environmental and NPC reports. These strategies do have significant environmental benefits—other research has shown that minimisation of packaging and maximising transport efficiencies are two of the most effective actions that can be taken to

improve the environmental impacts of packaging[113]. The challenge for governments and the NPCC is to ensure that companies implement efficiency strategies to the extent that they can, while also addressing ENGO and local government demands for increased recycling.

Company characteristics

The analysis of company characteristics focuses attention on industry sector, company size, location and other factors which mediate the responsiveness of firms within the same organisational field (Delmas and Toffel, 2004; Hoffman, 2001). This is useful in trying to understand why some companies in the packaging supply chain are more responsive than others. In summary, it is argued that the most responsive companies have been those that are highly visible because of their size and their history of engagement with government and ENGO stakeholders. These companies can be divided into two overlapping groups:

- those involved in the manufacture of beverages and beverage packaging, such as Foster's, Coca-Cola Amatil and Amcor, who have a long-standing commitment to voluntary PS programs because of stakeholder campaigns to extend CDL beyond South Australia;
- large transnational corporations with well known brands, such as McDonald's, Unilever and Kimberley-Clark, who have developed strong CSR or sustainability policies that influence their operations in Australia.

Less responsive companies have included retailers and brand owners who have not been exposed to significant stakeholder pressure in the past, particularly on product-related environmental issues, but are now starting to take action. Some of these companies, such as Woolworths and Coles, are establishing comprehensive environmental programs for the first time, while others are expanding operational environmental programs to include impacts 'up stream' and 'down stream' in the product life cycle.

At a macro level, the analysis of packaging discourses and public policy processes helps to explain why manufacturers of beverages such as soft drinks and beer and their

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[113] Parker (2008) concluded from a review of LCA studies that minimising packaging, using renewable energy and maximimising transport efficiencies are more effective strategies than recycling. This is because recycling, while worthwhile, uses energy for collection and reprocessing and generates waste.

packaging suppliers have been particularly proactive. After CDL was introduced into SA in the early 1970s and other states appeared willing to follow suit, these companies worked hard to demonstrate that they could manage the environmental impacts of non-refillable packaging without the need for legislation. Initially they established collection and reprocessing facilities for post-consumer packaging and developed voluntary agreements with state governments, and later became strong advocates for the NPC. Their responsiveness to PS was actively encouraged by industry associations such as LRA/BIEC and PCA, which were strongly opposed to legislative solutions. As kerbside recycling became institutionalised as the solution to packaging waste in the late 1980s and early 1990s, manufacturers of other beverages (such as milk and juice) and their packaging suppliers were also targeted by governments and ENGOs to participate in national and state waste reduction agreements. Finally, the NPC targeted the packaging supply chain as a whole, and companies in the food, consumer products and retail sectors began to develop PS policies and action plans for the first time.

The economic value of packaging materials also supported the responsiveness of beverage companies and their packaging suppliers. The primary materials used for beverages in the 1970s and 1980s were glass and aluminium, both of which had a commercial value to manufacturers. Recycling programs for single-use bottles and cans were initially established under pressure from governments and ENGOs, but they continued, at least in part, because of their economic benefit. The responsiveness of companies manufacturing packaging from other materials, such as plastics and liquidpaperboard, was constrained by the lower cost of these materials, which meant that they had little or no value as raw materials for manufacturing. In their case, pressure from stakeholder groups was the only reason that they became involved in recycling.

The progressive involvement of companies and their industry associations in packaging policy negotiations and voluntary agreements is reflected in the results of the industry-wide (meso level) evaluation of PS performance. Packaging manufacturers and brand owners, particularly those in the beverage industry, have been the most responsive to PS and retailers the least responsive. The institutionalisation of PS within beverage manufacturers and their packaging suppliers, which began in the 1970s, is reflected in much higher responsiveness scores than those for other sectors and the supply chain as a whole. Retailers were not exposed to any significant ENGO or government scrutiny until

the 1990s, when these stakeholders started to demand that they reduce the environmental impacts of shopping bags and join the NPC.

At a micro level, the extent to which companies have institutionalised PS through policies and practices appears to be influenced by the location of the corporate head office, company size and public profile. Global companies based in the US and Europe have been the most responsive, possibly due to the stronger tradition of voluntary social responsibility in these regions than in Australia. Comments made by interviewees about their PS activities suggest that the higher responsiveness of American and European companies is also due to other factors linked to their status as transnational corporations, such as:

- their size and high profile which makes them more vulnerable to criticism by governments and ENGOs;

- their exposure to packaging regulations and stakeholder expectations in a number of countries around the world, and not just Australia;

- the support they receive from their corporate head offices, which have had a longer history of involvement in PS than their Australian-based subsidiaries.

Because of their size, high profile and history of engagement with governments and NGOs on social issues, many of these companies also have CSR or sustainability policies which already address product-related impacts. A formal commitment to PS is consistent with these policies and can be built relatively easily into relevant management systems, such as those for supply chain management and sustainability reporting.

Overall conclusions

The primary research question for the thesis was: *How and to what extent has product stewardship been institutionalised within the Australian packaging supply chain?* In summary, companies in all sectors of the supply chain are starting to institutionalise PS by changing their policies and practices in order to minimise the environmental impacts of packaging. This is occurring through a process of 'coercive isomorphism', which is the result of political influence and changing cultural expectations (DiMaggio and Powell, 1991b). While the initial focus of government and corporate policies was on the impacts

of packaging in the waste stream, the NPC has broadened the policy debate and corporate responsibility to encompass the entire packaging life cycle. This shift in focus means that PS overlaps with other areas of conventional environmental management practice such as cleaner production and energy efficiency, and the NPC has prompted many companies to extend their environmental management programs into new areas or to make greater efforts to achieve environmental savings. However, the extent to which PS is being institutionalised in individual companies in response to changing public policies and stakeholder expectations is mediated by a range of company characteristics. The most important of these appears to be the level of exposure to government and ENGO scrutiny. This is strongly linked to industry sector—the beverage industry has been under the most pressure over the longest period of time because of the threat of CDL—as well as company size, public profile and head office location. Industry associations have played an important role in defining the PS institution as well as driving corporate responsiveness.

Nevertheless, it is also clear that, while there are significant changes occurring in the way that companies manage the life cycle impacts of packaging, these changes are not having any significant impact on the total amount of packaging being consumed. Recycling rates are increasing, but this is largely due to NPCC and government investments in infrastructure and strong demand in export markets rather than the actions of companies themselves. Under the NPC companies have flexibility to choose how and when they implement PS. As a result of pressure from customers and financial markets to reduce costs and increase market share, most companies are trying to focus on strategies which achieve an environmental benefit without any negative impact on the marketability or cost of their products. In general the strategies being pursued are designed to achieve an environmental benefit by increasing the efficiency of transport or production rather than by making any fundamental changes to the way that packaging is designed, manufactured, consumed or recovered. This approach is likely to achieve incremental changes which *will* reduce the life cycle environmental impacts of packaging, but without meeting the expectations of some government stakeholders and ENGOs for more rapid and substantial reductions in packaging waste.

Implications for theory

The analytical framework developed for the thesis challenged and extended existing conceptualisations of corporate social responsibility and responsiveness. Neo-liberal approaches, primarily those based on neo-classical economic theory, were rejected on the basis that they fail to explain corporate responsiveness to social issues, particularly where these responses do not generate any immediate financial benefit to the firm. They are also unable to explain how and why new institutions such as product stewardship are created. Economic theory would suggest that market based instruments such as an advance disposal fee, or other regulations designed to internalise social costs, would provide a more efficient solution to product-related environmental impacts. However, federal and state governments in Australia have generally supported self-regulation through voluntary agreements, supported by back up legislation (based on the 'extended producer responsibility' model) rather than MBIs or direct regulation.

The framework builds on a long tradition of research and theoretical development on corporate social performance within a managerial liberal paradigm. The CSP model which was originally proposed by Carroll (1979) and applied to empirical research by Labatt (1991; 1997) is a useful framework for analysing corporate policies and practice, i.e. *what* companies are doing in response to a particular social issue. Stakeholder salience theory (Mitchell *et al.*, 1997) has helped to explain *why* companies respond to social issues and how they prioritise the expectations of different stakeholder groups. However, stakeholder theory does not explain how social issues arise in the first place, or how organisations deal with competing stakeholder demands and different perceptions of stakeholder salience within the organisation. The other problem with the CSP framework and stakeholder theories is their silence on the institutional barriers inherent in a capitalist economy. Writers with an institutionalist perspective question the effectiveness of voluntary responsibility within a capitalist system, which appears to discourage initiatives that do not contribute to the corporate 'bottom line'.

The analytical framework developed for the thesis attempted to overcome these problems by combining insights from the CSP framework and stakeholder theory with those from new institutional organisational theory. Institutional theory focuses on the way that companies try to maintain legitimacy by working within established rules or customs. It

also provides a framework for understanding the way that companies interact with other stakeholders in an organisational field to influence the construction of a new institutional framework, in this case product stewardship. Additional insights were drawn from the advocacy coalition framework (Sabatier, 1991), discourse theory (e.g. Hajer, 1995b) and organisational theory (e.g. Mintzberg, 1983) to explore the dynamics of the institutionalising process in more detail.

This approach contributes to a greater understanding of environmental responsiveness by extending policy considerations more explicitly to the importance of institutional frameworks and drivers. In summary, it suggests that an environmental problem and the implications for corporate social responsibility are defined, contested and redefined through an iterative process at several levels (Figure 28).

Figure 28: An overview of the revised corporate social performance framework
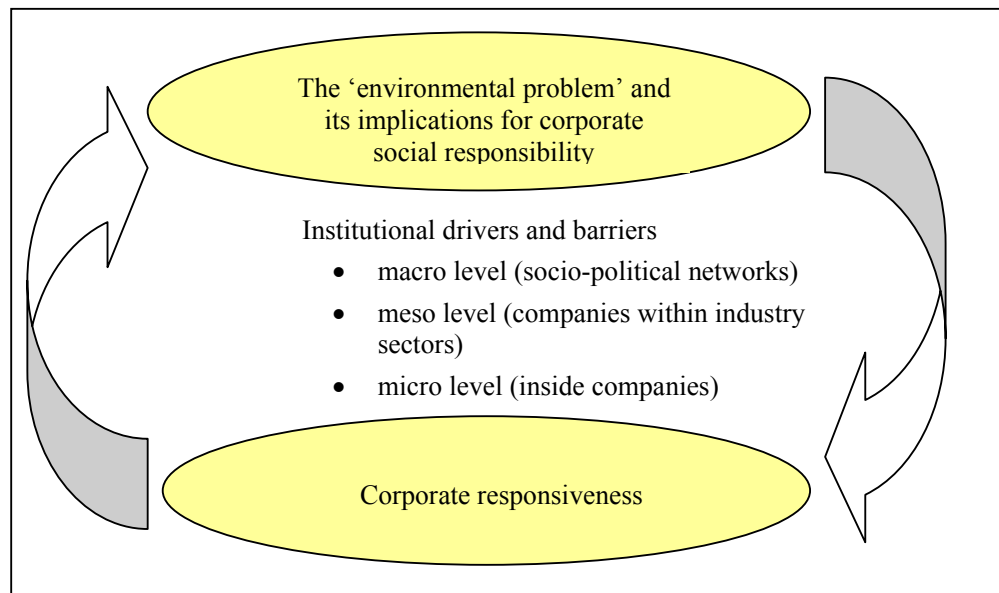
The highest of these is the socio-political networks within which corporate stakeholders (particularly governments, ENGOs and industry associations) engage in discursive struggle to define the nature of the problem and to identify appropriate policy solutions, and this process creates new standards of corporate behaviour that become institutionalised in everyday practice. These standards may become embedded within government regulations, voluntary agreements, codes of practice and corporate policy, and

over time become accepted within industry as the 'right thing to do'. The responsiveness of companies is mediated by a range of institutional factors that operate at both an industry and a corporate level. At an industry level companies are likely to be influenced by the level of government and public scrutiny of their activities, their history of involvement in the issue, economic drivers and barriers (such as the level of competition and economic conditions), their potential influence on the issue, and the policy position of key industry associations. The responsiveness of individual companies is also likely to be influenced by other corporate policies (such as a commitment to sustainability or CSR), company size, location of head office and type of ownership.

This research examined the influence of actors, discourses, policy processes and company characteristics at each of these levels on the institutionalisation of PS within the Australian packaging supply chain. However, the same framework could be used to understand the way that other environmental issues are institutionalised through processes involving policy networks, industry sectors and firms. A summary of the key elements in the framework is provided in Table 32 and more detail is provided below.

Table 32: Details of the corporate social performance framework

Level of analysis	Interest groups	Discourses	Policies and policy processes	Company characteristics
Macro: socio-political networks	Groups involved in policy processes – their interests and policy beliefs	The story-lines used by groups to frame the policy problem and policy solutions	The interaction of competing coalitions in public policy processes	The influence and power of economic interests in public policy processes
Meso: companies within industry sectors	Industry sectors and associations – their economic and political interests	The language used by companies and associations in different sectors to describe the policy problem and corporate responsibilities	The policies and practices being implemented within different sectors to demonstrate responsiveness	The influence of industry sector on corporate responsiveness
Micro: inside companies	Functional groups within individual companies – their roles and external stakeholders	How the policy problem and corporate responsibilities are framed internally by linking them to other business policies and priorities	Corporate policy processes and structural changes within firms that are helping to institutionalise corporate responsibility	The influence of company size, public visibility, location, ownership and corporate culture on responsiveness

Macro level analysis

This is the level at which the problem is defined and policy solutions are developed through discursive and policy processes.

Models of corporate social performance within a managerial paradigm refer to the social issues that help to shape corporate social responsibilities (e.g. Carroll, 1979; Wood, 1991). There is some acknowledgement that these issues are often unclear and can change over time (e.g. Swanson and Niehoff, 2001) but there is very little discussion in this literature about the contested nature of social issues and the interests that shape them. Stakeholder theory can be used to identify the social issues most relevant to individual companies (e.g. Mitchell *et al.*, 1997), but it fails to explain how social issues and stakeholder groups 'emerge from the interaction and negotiation of actors' (Näsi *et al.*, 1997, pp. 318-9). This is a significant gap in existing CSP models.

The analytical framework developed for this research explicitly considers how a social issue becomes institutionalised in government policy and corporate practice. As outlined in Chapter 3, issues are not simply 'out there' waiting to be discovered (Bessant *et al.*, 2006). They are socially constructed through discourses between groups with different interests and policy beliefs. Policy and discourse analysis were used to understand how actors interacted to frame the 'packaging problem' and corporate responsibilities and to embed these in the NPC. It identified 'advocacy coalitions', the role that these played in policy debates, and their relative power in negotiations. It also examined the way that groups used particular story-lines about packaging, waste and corporate responsibility to influence policy outcomes.

This type of analysis is critical in understanding how an environmental issue emerges and becomes a 'corporate social issue'. It demonstrates, at least in an Australian context, how industry associations have been able to shape policy and stakeholder expectations to achieve outcomes which are less onerous and more acceptable to their members than policies proposed by other stakeholders. An important insight from new institutional organisational theory is that companies are not passive players in the construction of a new institution. Industry associations, in particular, play an important role in shaping the normative environment through 'institutional work' practices such as lobbying. This is

contrary to the conventional approach to CSR, which assumes that companies are *reacting to,* rather than helping to shape, social expectations.

The ability of industry associations and business interests to influence environmental policy in Australia is also evident in other areas, such as greenhouse policy. Under the previous Liberal Government, industry associations representing the energy, mining and resource processing sectors and many of their member companies had privileged access to government policy makers and were able to delay ratification of the Kyoto Protocol (Pearse, 2007). Under the current Labor Government, the same interests are successfully negotiating higher levels of compensation and other changes to the proposed emissions trading scheme to limit the potential impacts of a carbon price on competitiveness (Maiden, 2009).

Meso level analysis

The policy problem and corporate responsibilities are also debated, contested and reinterpreted within industry sectors. The research found that the responsiveness of companies to the packaging problem and the NPC varied depending on their position in the packaging supply chain. This was attributed to a range of factors, including:

- the potential impact of regulations on companies in different sectors—the beverage industry and its packaging suppliers, for example, have more to lose from regulations such as CDL than other brand owners and retailers;

- the ability of companies in different sectors to influence the environmental impacts of packaging—brand owners have more influence on packaging design than packaging suppliers, for example;

- the role of the different industry associations in supporting or contesting the principle of product stewardship and the implications for corporate responsibility; and

- the extent to which each sector has been exposed to public and government pressure to implement voluntary corporate responsibility programs for packaging.

Research on corporate social performance from a managerial perspective has previously identified industry sector as one of the variables influencing corporate responsiveness, but

without providing any framework for understanding the institutional factors that drive or constrain performance within an industry sector. Industry associations influence the way that issues are institutionalised through their role in shaping public policy and through their influence on corporate policy and practice. The company representatives interviewed for this research did not regard industry associations as a significant stakeholder, but the macro level analysis in Chapter 4 highlighted their importance in shaping the institutional environment. This supports Gunningham and Rees (1997), who argued that industry self-regulation only works when industry associations are effective in establishing a new form of 'industrial morality'. The success of self-regulation has also been linked to the capacity within industry associations to provide political and technical information and to bind their members to agreements negotiated with the state (Atkinson and Coleman, 1989). An understanding of actors and processes at an industry level, and particularly the role of industry associations in shaping policy and guiding the responsiveness of member companies, could be used to design more effective environmental policies. For example, voluntary agreements (such as the NPC) could outline more explicitly the role of industry associations in encouraging and supporting implementation.

Micro level analysis

The policy problem and corporate responsibilities are also contested and reframed within companies.

Conventional stakeholder theory and CSP models assume that organisations operate as a unified whole and that perceptions of stakeholder salience are common across the organisation. The framework that was developed for this research took a different approach. It builds on the approach taken by Hoffman (2001) to investigate the diffusion of environmental management practices within firms and research by Jones (1999) on corporate social responsibility. Both of these writers focused on internal groups or functions rather than the firm as a whole. It also draws on other research from organisational theory (e.g. Clegg, 1990; Mintzberg, 1983), which identified the importance of internal groups within the firm and their relative power.

This approach provided additional insights into the way that PS is being institutionalised within companies. Companies do not have a single interest or objective when it comes to

environmental issues. Rather, each functional group—such as marketing, design, production, environment or procurement—has its own objectives and is influenced by particular internal and external stakeholders. Environmental strategies are determined through a political process involving negotiation between groups with different levels of power within the organisation. Stakeholder theory (particularly Mitchell *et al.*, 1997) is relevant in trying to understand the responsiveness of a company to stakeholder expectations, but this needs to be applied to internal groups as well as the company as a whole. An understanding of functional groups, their interests, stakeholders and relative power within the organisation, can help to identify barriers to change within companies. Decisions about packaging design, for example, are driven by marketing. The environmental commitments made by a company at management level, for example by signing the NPC and submitting an action plan, will only be implemented if there are structures and policies in place to ensure that everyone in the firm—including marketing—are accountable for achieving outcomes.

An understanding of the political processes operating within firms can inform environmental policy development by identifying the key decision makers that need to be engaged and made accountable. It can also be used by practitioners within firms to embed the environmental issue within corporate structures, policy and practice. Both of these issues are discussed further in the next section.

Implications for policy and practice

Public policy

The research findings support the 'Porter hypothesis' (Porter and van de Linde, 1995a; 1995b) that a well-designed environmental policy can help companies to generate product and process improvements that produce positive commercial *and* environmental outcomes. The NPC is encouraging companies to look for opportunities to improve efficiency and reduce waste in their operations, for example by eliminating unnecessary packaging and designing packaging to use less material. However, many of the company representatives who were interviewed for this research believe that governments and the NPCC are not providing enough support to companies, nor are they providing enough incentive for action through the enforcement of the NEPM.

One of the potential challenges of a largely voluntary scheme, such as the NPC, is that most companies will only pursue PS strategies to the extent that they support other business goals such as increased efficiency or profit. While there are some examples of companies in the packaging supply chain pursuing PS strategies that increase packaging costs, most of the actions that are publicly reported under the rubric of corporate social responsibility or environmental stewardship have a direct or indirect benefit for the corporate 'bottom line'. The flexibility of the NPC and its voluntary nature mean that companies are not going to make any significant changes to their packaging unless there are sound business reasons for doing so. This is supported by other product policy evaluations which show that voluntary PS schemes appear to be less effective in promoting DFE and environmental innovation than those which impose more responsibility on manufacturers (e.g. Holmes, 1999; McKerlie *et al.*, 2006; OECD, 2005; Quinn and Sinclair, 2006; Røine and Lee, 2006; van Rossem *et al.*, 2006).

The amount of packaging consumed in Australia is still increasing, albeit at a slower rate, and a large proportion of this is manufactured from non-recyclable materials. Recycling rates, while increasing, are also regarded by ENGOs and some local government associations as inadequate, and these groups continue to advocate CDL. While the difficulties involved in the development of a national regulatory approach in Australia's federal system of government should not be ignored, it is important to note that the policy beliefs which underpin demands for CDL—that packaging waste is a significant environmental problem and that voluntary corporate responsibility will not achieve any satisfactory solution—have not changed since the early 1970s, despite numerous government inquiries that have recommended against CDL.

This impasse needs to be resolved to the satisfaction of all stakeholders. The NPC is achieving some important environmental outcomes and should be continued. However, there are policy strategies which could be implemented simultaneously to improve its effectiveness. First, this research has highlighted the fact that company representatives are frustrated with the lack of enforcement of the NEPM by state jurisdictions. A stakeholder survey conducted for the mid-term review of the covenant also found a high level of dissatisfaction with regulatory enforcement (Hyder Consulting, 2008b). Governments are using the NEPM to encourage companies to sign the covenant but not to enforce compliance with action plan and reporting requirements (NPCC, 2008d). This is despite

the fact that the NEPM is intended to be applied to brand owners who are not 'fulfilling their obligations under the Covenant' (NEPC, 2005, p. 7) and these obligations go beyond becoming a signatory. The NEPM was considered by most industry associations to be critical to the success of the NPC because of the need to prevent 'free-loading' on the voluntary scheme. However, the NEPM will only be effective if governments indicate their willingness to move up the 'enforcement pyramid' (Ayres and Braithwaite, 1992) when required. One of the barriers to enforcement is the federal system of government in Australia, which requires coordinated action by eight state and territory government jurisdictions as well as the NPCC.

Second, there is a need for a complementary mechanism that provides companies with a greater financial incentive to reduce the environmental impacts of packaging. The analysis of interest groups within the firm for this research suggests that different policy mechanisms may be required to influence key functional groups. The NPC may be a sufficient driver for people in corporate affairs or environmental positions, but not for those involved in marketing or management. The EPHC (2008b) has asked the NPCC to 'prepare a framework for an extended Covenant beyond 2010 as well as other options for managing the environmental impacts of packaging ... [t]hese options may involve the use of complementary economic (or other) instruments'. Neo-classical environmental economists argue that market-based instruments are the most efficient and effective way of internalising environmental costs and changing corporate behaviour (e.g. Palmer and Walls, 2002; Porter, 2002). Market based instruments that change the price of packaging materials are more likely to influence marketing and management groups than policies (like the NPC) that rely on principles such as corporate social responsibility or stakeholder engagement.

Contrary to the belief of some stakeholders, CDL does not appear to be the best solution. Redeemable deposits provide consumers with an incentive to return packaging for recycling and could therefore increase recovery rates, but a national CDL program would be problematic for a number of reasons:

- Most CDL programs only apply to beverage packaging, which contributes around 2.7% of waste to landfill, whereas packaging as a whole makes up around 10% (AFGC, 2008c).

- Kerbside collection systems, which are widely available in urban and regional centres in Australia, accept a much wider range of packaging and may be undermined by a second collection system for beverage containers.

- CDL does not provide companies with any incentive to change the way they design packaging.

Federal and state governments on both sides of politics have indicated over the past few decades that they are unwilling to introduce a packaging policy, like CDL, which is strongly opposed by business interests, including large manufacturers and retailers. CDL was also not supported by the EPHC-funded investigation of complementary mechanisms because of uncertainty about the costs and benefits (MMA and BDA, 2007).

In contrast, an advance disposal fee (ADF) could be structured to reduce the amount of packaging, increase the amount of recyclable packaging and provide funding to expand the collection and recovery infrastructure. This was one of the short-listed options in the report to EPHC on complementary mechanisms (MMA and BDA, 2007). ADFs are used in various forms overseas to encourage extended producer responsibility for packaging. Under this type of scheme, a mandatory fee would be charged for every item of packaging sold. The fee could be calculated on the basis of both weight and recyclability, i.e. higher fees would apply to non-recyclable materials. This would provide a clear financial incentive for companies to eliminate unnecessary packaging, to reduce packaging weight and to switch from non-recyclable to recyclable packaging materials.

The funds raised through an ADF could also be used to fund research and development and infrastructure grants to improve the collection, sorting and reprocessing of packaging materials. Research for the mid-term review of the NPC concluded that projects already funded with industry contributions are likely to increase recycling levels significantly (Covec, 2008).

Finally, policy initiatives to encourage more 'sustainable consumption' of packaging could be explored. Environmental policies that target consumers rather than producers may be an effective way of addressing the impacts of globalised production–consumption chains and networks (Spaargaren and Mol, 2008). Interviews conducted for this research (Chapter 6) highlighted one of the challenges for packaging stewardship in Australia—the fact that local subsidiaries of transnational corporations often have little influence over

packaging design and its recyclability. The NPC is only one of the many drivers that make up a company's legal, economic and social 'licence to operate' (Gunningham *et al.*, 2003) in global markets, and is unlikely to be the most influential for a company based in Europe, the US or Asia. Targeting Australian consumers in their role as 'consumer-citizens' (Spaargaren and Mol, 2008) may help to overcome this problem. The amount of packaging waste generated is the direct result of purchasing decisions made by consumers. Policies that might influence these decisions include eco-labelling and education to inform consumers about the environmental impacts of packaging including its recyclability. As discussed in Chapter 6, consumers are already concerned about issues such as packaging waste and litter but more effort is required to translate this concern into purchasing decisions that favour environmentally preferable packaging. However, while there is an opportunity to promote individual responsibility, consumers can only take action if they have the ability to choose more sustainable packaging, and this will depend on issues such as availability and affordability. For this reason, 'ecological citizenship' needs to be promoted within the context of collective action through the state and civil society to address structural barriers to participation (Melo-Escrihuela, 2008).

Any redesign of packaging policy also needs to take into account the emergence of climate change as a high priority for governments at a national and global level (Garnaut, 2008; IPCC, 2007; Stern, 2006). This is starting to be reflected in corporate packaging initiatives, such as the announcement by Tesco in the UK that it would put 'carbon labels' on all of their products to provide information on their carbon footprint from production through to consumption (Leahy, 2007)[114]. Like all other products, packaging uses energy and generates carbon dioxide, a common greenhouse gas (GHG), during the processing of raw materials, manufacturing, distribution and recycling. Organic materials such as biopolymers, paper and cardboard also break down in landfill and generate methane, another potent greenhouse gas. The renegotiation of the NPC should include a requirement for signatories to measure and reduce GHG emissions throughout the packaging life cycle. Recycling targets need to be based on a full understanding of the impact that recycling has on GHG emissions. Recycling should not be viewed as an

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[114] Extensive research on carbon labels is being undertaken by researchers at the Sustainable Consumption Institute, Manchester University, which was established with funding support from Tesco (SCI, 2008).

environmental objective in its own right; but rather as a strategy to achieve environmental objectives such as lower levels of pollution. In other words, recycling rates should be *optimised* rather than *maximised* to ensure that there is a net benefit in environmental terms. There needs to be consistency between the extended NPC and the federal government's proposed Carbon Pollution Reduction Scheme, which is a 'cap and trade' or emissions trading scheme (DCC, 2008). For example, emissions associated with waste management and recycling need to be included in the scheme to provide a financial incentive to companies to recycle or incorporate recycled materials in production[115]. This approach is consistent with 'best practice' in environmental policy, which considers the contribution of measures against multiple sustainability objectives (OECD, 2007).

The findings of this research also have a number of implications for the design of any environmental policy intended to influence corporate behavior, regardless of the specific issue being addressed. First, companies are more likely to respond to a new policy if it can be used internally to achieve both environmental and business objectives. Most signatories to the NPC are pursuing policies that have commercial benefits in the short term (for example by reducing material costs) or in the long term (for example by supporting their corporate reputation and protecting their 'licence to operate'). Policies need to be flexible enough to allow companies to select the strategies that are most likely to benefit their business. Wherever possible, government policy makers should also frame the objectives of a policy to reflect its business benefits as well as its environmental objectives and benefits. The NPC, for example, could be reframed as a business development program designed to:

- reduce packaging costs at every stage of the supply chain by improving production, transport and handling efficiencies;

- improve competitiveness in local and export markets by responding to consumer interest in environmentally responsible packaging (and closing the gap between the interest expressed by consumers in market surveys and their actual purchasing behaviour); and

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[115] The Australian Council of Recyclers (ACOR), Amcor, Visy Recycling and the Waste Management Association of Australia (WMAA) have all argued that the emissions trading scheme may have a negative impact on recyclers compared to manufacturers of some virgin materials (Morton, 2008; WMAA, 2008).

- building corporate reputation and brand value by implementing and promoting environmental initiatives.

Reframing an environmental policy or program as a business development tool would enhance rather than diminish its environmental effectiveness by encouraging greater commitment within firms. This can be achieved in a number of ways, including explicit promotion of the business benefits in all policy documents and the publication of corporate case studies that focus on real examples. A good example of the latter is provided by the Australian Government's Energy Efficiency Opportunities (EEO) program[116], which regularly publishes case studies and reports that promote the benefits of energy projects for cost saving, productivity, product quality, workplace safety and other business objectives[117].

However, it is unlikely that all companies will be able to benefit from an environmental policy. According to Hoffman (2002, p. 330), there will be winners and losers from climate change policy, for example, because companies 'face different financial and technical realities based on their installed capital base, market competencies and strategic position in the political and social arenas'. Nevertheless, it is clear that when companies are required to look for improvement opportunities they often find them. Most of the company representatives interviewed for this research noted that many if not all of the strategies they were pursuing were achieving business as well as environmental benefits. The business benefits of the EEO program appear to be even more significant because of the potential to save relatively large amounts of money through energy efficiency improvements.

Second, companies will only respond to policies where there is a real threat of enforcement. The effectiveness of the NPC appears to have been limited by an unwillingness of state governments to enforce the NEPM for non-performance as well as non-participation. A co-regulatory approach to policy that combines self-regulation with a regulatory back-up mechanism to discourage 'free-riders' has many benefits, including the

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[116] The EEO program requires large energy users to identify potential energy efficiency opportunities and to evaluate the commercial feasibility of these opportunities.

[117] Department of Resources, Energy and Tourism (DRET), www.ret.gov.au/energy/efficiency/eeo/resmaterial/Pages/default.aspx (viewed 13 October 2009).

flexibility it provides for companies. However, governments need to be committed to enforcement.

Third, a new behaviour will only be institutionalised when it becomes embedded within corporate policies and practices. Policy design needs to recognise how and where decisions are made within the firm and how these decisions can be influenced. Within a product manufacturing firm (brand owner), for example, decisions about packaging are made by the marketing group, and environmental and technical personnel may have limited influence on the product development process. The NPC requires all companies to implement the Environmental Code of Practice for Packaging (ECoPP), and this necessarily involves action by the marketing group. However, this requirement needs to be enforced to ensure that ECoPP is used for all packaging development and that the marketing group is accountable for the environmental impact of their decisions. The decision makers who need to be targeted by other environmental policy initiatives may be different. For example, energy use within a manufacturing firm is largely controlled by operational staff, i.e. management, production and maintenance personnel at site level.

Policy makers therefore need to identify key decision makers within the firm, and to ensure that these groups and individuals are involved in implementation. Some of the mechanisms for this include:

- engagement with senior management to ensure that the policy receives corporate support (e.g. by ensuring that reports to government are signed by the chief executive officer); and

- a requirement for companies to implement and report on specific management practices, such as product design guidelines (as required under the NPC) or a process for identifying energy efficiency opportunities (as required under the EEO program).

An alternative approach is to design a market based instrument (MBI) that ensures environmental costs are fully internalised in decision making. An ADF, if designed and implemented effectively, should ensure that packaging design decisions minimise packaging waste and optimise recyclability. Similarly, an emissions trading scheme, if designed and implemented effectively, should encourage energy efficiency improvements and a shift from fossil-based to renewable sources of energy. However, this research has

highlighted the need for an institutional approach to policy making which recognises the many drivers, in addition to cost, that influence corporate decisions. At a meso level these include the extent of government and public scrutiny of a particular issue (and regulatory threats) and the role of industry associations in guiding corporate responsiveness. At a micro level they include the presence or absence of corporate policies on sustainability and corporate social responsibility, the attitude of senior management to the proposed change, and the need to balance different, and sometimes competing, stakeholder expectations. The implication of this is that even with an effective MBI, complementary mechanisms may be required to support organisational change. These might include, for example:

- support for training and other capacity building activities to assist 'project champions' to institutionalise the environmental issue within corporate policy and practice; and

- an awards program that helps to institutionalise new standards for environmental 'best practice' by recognising and promoting the achievements of industry leaders.

Corporate policy and practice

The thesis has analysed the way that environmental issues and strategies are interpreted and managed within firms. According to Ackerman (1973) a new social issue only becomes institutionalised when a company allocates appropriate resources to the problem and shifts responsibility from specialists to managerial and operational staff through changes in formal control systems. This research has investigated these processes in detail through a case study of product stewardship within the Australian packaging supply chain, but its findings are relevant to the promotion of other environmental issues within organisations.

One of the main conclusions of the research is that PS strategies are decided through a political process involving a range of functional groups with different levels of power within the organisation. In making decisions about corporate strategy and specific activities, these groups try to balance the needs and expectations of different external

stakeholders including customers, governments and ENGOs. As a result of these processes, PS is being institutionalised within firms in three ways:

- by reframing the packaging problem and PS within the context of other corporate policies and priorities;

- by choosing to implement PS strategies that meet the needs of multiple internal and external stakeholders; and

- by embedding PS within corporate structures and business processes.

The packaging problem and PS are reframed and reinterpreted within companies according to their individual circumstances and priorities. NPC coordinators gain the support of key people within their organisation, and sometimes their customers, by reframing PS as something of value to the business. This is a rational approach, and one with implications for the promotion of other environmental or sustainability issues within firms. Each company needs to understand the implications of a particular issue or policy for their own business, and wherever possible, to choose strategies that will generate business *and* environmental benefits. An obvious example is the avoidance or lightweighting of packaging, which can simultaneously reduce manufacturing costs, satisfy customer demands for efficiency improvements, and reduce environmental impacts at every stage of the packaging life cycle. The pursuit of other environmental objectives, such as reduced greenhouse gas emissions, can also generate multiple business benefits[118]. The business benefits of an environmental policy or program therefore need to be understood and promoted by practitioners within firms.

One of the difficulties for companies as they try to implement a PS or 'life cycle management' approach to packaging is the lack of clarity about what this actually requires in practice. PS provides an institutional framework for corporate responsibility, but the exact nature of this responsibility is often poorly defined. The NPC has been designed with so much flexibility that it is largely left to companies to determine when and how they respond. This is likely to be a particular problem for smaller companies, which may not have the support of a full-time environmental manager or access to the technical support provided by transnational corporations to local subsidiaries. The responsiveness

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[118] Many participants in the federal government's EEO program, for example, have reduced costs, increased productivity or improved process control (DRET, 2007; 2008; 2009)

evaluation guidelines that were developed for this research (Table 23 in Chapter 5) could be adapted to provide a 'how-to' guide or checklist for PS coordinators within companies. However, the reality is that each company is unique and the 'best' or most appropriate strategies vary from company to company, even within the same sector. The NPC is based on a principle—product stewardship—and was deliberately designed to be non-prescriptive. As a result, companies need to choose strategies based on their own individual circumstances.

This research has highlighted a number of other steps that can be taken to institutionalise PS, and potentially any environmental issue, through changes to corporate structure and business processes. The most responsive companies have learnt that there are many challenges that need to be addressed, including the need to motivate and engage staff in core functions within the organisation. While 'project champions' (NPC coordinators) in environment and corporate affairs may have limited power to influence these other groups through direct persuasion, organisational change can be achieved through:

- leadership provided by senior management;

- appointment of a strong project champion;

- allocation of responsibility to people in core business functions;

- coordination provided by a cross-functional project team; and

- management of the issue through existing business systems.

Leadership from senior management is important for several reasons. It sends a message to other managers and operational staff that the issue is important and needs to be considered in decision making. It helps to ensure that adequate resources are provided for implementation; and that environmental impacts are measured, monitored and reported. The absence of such a management framework means that the project champion has very little authority to promote change within the organisation.

The assessment of PS performance (Chapter 5) examined a number of management indicators, including the existence of a product-oriented environmental policy, objectives and targets; resources allocated to product stewardship; the inclusion of product impacts in an environmental management system; accounting for product-related performance and

impacts; and public reporting on product stewardship commitments and achievements. More generally, strong corporate leadership on an environmental issue is evident when:

- the company's environmental policy includes a commitment to address the issue;

- the company has objectives, strategies and measurable targets to ensure that the policy is implemented, for example in a sustainability strategy or business plan;

- there are sufficient human and financial resources allocated to implementation, for example at least one person with responsibility for coordination and an appropriate budget for projects;

- there is an environmental management system which will ensure that the issue is systematically addressed in corporate policies and procedures; and

- there are systems in place to collect the data that will enable performance to be measured and monitored (data on physical flows as well as financial costs and savings) .

The appointment of a strong project champion is also critical to the successful implementation of an environmental policy or program. According to some of the company representatives interviewed for the thesis, it helps when this person is passionate about his or her role. As one person put it, 'someone who will see this as their great calling in their career for the next couple of years'. It also helps when they have seniority. One interviewee was employed at an executive level to coordinate the company's response to the NPC, and this enabled him to raise issues with senior management. The role of the internal champion varies depending on their position in the company and the resources available to support implementation, but for most NPC coordinators it includes the development of action plans and public reports in consultation with other key people in the organisation. They also tend to have a broad educative role. According to one interviewee, the role of a champion is to promote the issue, to teach people, and to 'learn as much as they can and keep pumping information out there so that more and more people in the organisation are aware of it'.

It is clear, however, that a passionate and hard-working project champion is not sufficient to achieve successful implementation. A complex issue like PS requires the involvement of different groups across the organisation, including marketing, production, procurement

and public affairs/environment. Responsibility for the issue therefore needs to be allocated to staff in all of the relevant functional groups within the organisation. Several interviewees observed that allocating responsibility for PS to one person in the environmental or public affairs group has been a barrier to change. This is because it encouraged people to see PS as an environmental issue rather than a business responsibility. The lesson for environmental management more generally is that after an issue has been identified as a priority, responsibility needs to be allocated across the organisation, and not just to a specialist within environment or public affairs.

The need to involve different groups across the organisation has prompted some companies to establish a cross-functional team or committee to coordinate the preparation and implementation of their PS action plan. Ideally this committee includes senior management representatives from each of the relevant groups. One the companies evaluated for the thesis has a taskforce which includes the general manager of each division along with a technical manager, sales and marketing manager, process development manager and corporate environmental manager. Management of any environmental program by a cross-functional team has a number of benefits, including:

- coordination of program activities;

- engagement with all of the key groups involved in implementation, allowing them to contribute ideas and to share information with others;

- providing all of the key groups with a sense of ownership and responsibility for program outcomes; and

- providing a forum to monitor progress and identify any remedial actions required to meet goals and deadlines.

Another important way to achieve 'buy-in' across the organisation is to ensure that the issue is embedded within existing business systems. For packaging this means ensuring that environmental issues are considered during the design process. Larger corporations tend to have a 'gated' NPD process, which means that a senior manager or committee is required to review the design at key stages or 'gates'. The most progressive companies have integrated the Environmental Code of Practice for Packaging (ECoPP) within their NPD procedures to ensure that the code is always used to evaluate packaging. In one case,

a negative outcome (i.e. contrary to ECoPP) means that the packaging is elevated for review by a more senior manager. As one interviewee noted, this 'takes out the conflict between personalities' because the requirements are clearly outlined in procedures that have been approved by senior management. PS is also being embedded within other policies and procedures including environmental policies, environmental management systems and procurement guidelines.

Many of these issues have been raised before, including the need to modify procedures to ensure that all managers have an incentive to be more responsive to social issues (Ackerman, 1973). More specifically on this issue, it has been suggested that design for environment needs to be formally integrated within environmental management systems and product development systems (e.g. Charter, 2001; Brezet and Rocha, 2001). The contribution of this research is to place these management solutions within the context of the political processes that influence corporate strategy. Companies have many different stakeholders and objectives, and their responsiveness to a particular issue (such as PS) will depend on the relative power of internal and external 'influencers' (Mintzberg, 1983). A better understanding of these processes will assist government policy makers and internal project champions to more effectively promote environmental issues as a corporate responsibility.

Limitations of the research

This research has a number of limitations. First, the case studies were deliberately biased towards the largest companies in each sector of the packaging supply chain. This decision was based on normative arguments about the progressive responsibility of firms (i.e. that responsibility increases with size) and the practical reality that the companies selected for analysis account for 90% of turnover in the packaging supply chain. It is therefore not possible to draw conclusions about the extent to which PS is being institutionalised within small to medium sized companies.

Second, the evaluation of corporate responsiveness within industry sectors was based on analysis of documents published by the case study companies, including NPC reports, sustainability reports, annual reports and corporate web sites. One of the limitations of this approach is that these documents tend to be used for self-promotion and some of the

information on PS policies and practices may be exaggerated. On the other hand, some documents may not be comprehensive, i.e. they may not mention all of the relevant policies and practices. For example, if the NPC coordinator is located within the product development or marketing group they may not be aware of cleaner production initiatives being undertaken by the company or may not regard them as relevant to the NPC. Some companies do not publish sustainability or environmental reports. PS performance scores therefore reflect the quality of reporting as well as corporate responsiveness.

Third, the rating system developed to evaluate corporate documents is based on an established approach (e.g. Labatt, 1991) and a detailed review of the environmental management literature, but it uses subjective evaluations and calculations. It would be difficult, however, to find any consensus on PS responsibilities and appropriate measures of performance. This problem was highlighted in earlier research (Lewis 2005) and in the analysis of discursive and policy processes in Chapter 4.

Finally, the use of a quantitative rating tool may have additional limitations because of the small sample size selected for the research (thirty companies). While the industry-wide results provide good insights into the performance of the industry as a whole and individual sectors, further statistical analysis would be required to determine whether the results for some company characteristics (such as location of head office, company size and ownership) are statistically significant.

Further research

There are several avenues that could be explored for further research.

To overcome some of the limitations outlined above, the PS indicators (Table 23) could be used for a more extensive, quantitative analysis of corporate responsiveness. A self-administered questionnaire based on these indicators could be sent to all NPC coordinators to ensure wider coverage of small to medium sized companies. A larger survey would enable more detailed analysis of differences between companies based on company characteristics, including location of head office, size and ownership. A survey of NPC coordinators would also overcome some of the limitations of public documents, which may not be comprehensive or entirely accurate. Of course, the same limitations may apply to a survey, which relies on the knowledge and honesty of respondents.

More in-depth case studies could also be used to investigate institutionalising processes in more detail. One of the most important objectives of product responsibility policies, whether these are based on voluntary PS or a more regulated form of EPR, is to promote design for environment. DFE involves changes to the product development process to ensure that environmental issues are considered during design and procurement processes. The environmental outcomes that can be achieved through a conventional design process will be influenced not only by corporate policy, but also by the values, attitudes and knowledge of the individuals involved and their relative power in the organisation. Another critical issue is the perception that these individuals have about the salience of particular stakeholders, such as customers, suppliers, governments and ENGOs. In-depth case studies of product development projects within a small number of companies would enable these issues to be explored in more detail. For example:

- Are formal DFE policies and procedures actually implemented in practice?

- What is the role and influence of marketing, packaging and environmental specialists in determining design outcomes?

- To what extent are outcomes influenced by power relationships within the corporate structure, the perceived salience of external stakeholders, and the values and attitudes of individuals?

This type of case study research could also be used to further develop stakeholder theory by linking external groups to 'internal influencers' within the company. Stakeholder salience theory (Mitchell *et al.*, 1997) could be combined with organisational theories which focus on corporate structures and power (e.g. Mintzberg, 1983; Clegg, 1989) and competing 'modes of rationality' (Clegg, 1990).

Another useful research direction would be to focus on the design and implementation of public policy for packaging. For example:

- What is the most effective policy (or combination of policies) to promote packaging stewardship within firms?

- How can a well-designed PS policy overcome barriers to efficiency within firms and therefore help to achieve 'win–win' outcomes?

This could build on research which strongly suggests that policy interventions can help to overcome barriers to efficiency within firms, such as inertia, imperfect information and inappropriate reward systems (e.g. Cabugueira, 2001; DeCanio, 1994; Paton, 2001; Porter and van de Linde, 1995a; Ramesohl and Kristof, 2002). Many of the industry representatives interviewed for this research argued that they would have liked to see more support for NPC implementation within firms from government agencies and the NPCC. Many lessons can be learnt from other environmental policy measures, particularly voluntary environmental agreements in Australia and elsewhere, to inform the design of an improved NPC and other product-related policies.

Finally, the conclusion that companies and their associations help to shape stakeholder perceptions of corporate responsibility could be explored through further research on the discursive and policy processes that define corporate social responsibilities, and the extent to which these responsibilities reflect non-industry interests.

Appendix 1: Interviews

Code name	Date of interview
Company A	7/4/05
Company B1	1/4/05
Company B2	14/4/05
Company C	31/8/05
Company D	30/3/05
Company J	25/2/08
Company I	6/2/08
Company G	28/10/05
Company H	5/2/08
Company K	4/3/08
Company E	7/4/05
Company L	14/2/08
Company M	11/2/08
Company N	11/2/08
Company O	14/2/08
State Government A	21/9/05
State Government B	28/6/06
State Government C	6/6/07
State Government D	6/5/04
State Government E	5/3/04
State Government F	12/7/07
State Government G	29/3/05
Federal Government A	27/10/06
Local Government A	6/2/04
Local Government B	30/7/07
ENGO A	18/5/04
ENGO B	30/6/06
ENGO C	30/4/04
ENGO D	2/7/07
Industry association A	21/9/05
Industry association B	16/5/07
Industry association C	10/5/07
Industry association D	10/5/07
Industry association E	22/9/05

Appendix 2: Company case studies

The evaluation of corporate responsiveness in Chapter 6 was based on a review of documents published 1999–2005. Some of the companies have changed their ownership and name since 2005 and relevant details are provided in notes at the bottom of the table.

Company by sector	Sales revenue ($m) (financial year)	Corporate owner (as at December 2005)	Type of ownership	Location of head office
Packaging manufacturers				
Visy Industries	3,170.0 (6/04)	Visy Industries	Private (family owned)	Australia
Amcor Australasia	2,571.7 (6/05)	Amcor Limited	Public	Australia
Carter Holt Harvey*	3,305.3 (12/04)	Carter Holt Harvey	Public	New Zealand
Huhtamaki Australia Pty Ltd	208.3 (12/04)	Huhtamäki Oyj	Public	Finland
ACI Operations Pty Ltd	1,259.1 (12/04)	Owens-Illinois, Inc.	Public	USA
Retailers				
Bunnings Group Limited	4,100.0 (6/05)	Wesfarmers Limited	Public	Australia
Coles Myer Limited**	36,185.2 (7/05)	Coles Myer Limited	Public	Australia
David Jones Limited	1,799.1 (6/05)	David Jones Limited	Public	Australia
Metcash Trading Limited	6,993.7 (4/05)	Metcash Trading Limited	Public	Australia
Woolworths Limited	31,352.0 (6/05)	Woolworths Limited	Public	Australia
Brand owners				
Bonlac Foods Limited	712.6 (6/05)	Fonterra	Public	New Zealand
Cadbury Schweppes Limited	2,155.0 (1/05)	Cadbury Schweppes Limited	Public	UK
Coca-Cola Amatil	4,149.6 (12/05)	Coca-Cola Amatil	Public	Australia
Dulux	520.6 (9/05)	Orica Limited	Public	Australia
Fisher & Paykel Appliances Australia Ltd	953.1 (3/05)	Fisher & Paykel Appliances Holdings Limited	Public	New Zealand
Foster's Group	3,972.3 (6/05)	Foster's Group	Public	Australia
George Weston Foods Limited and AB Food & Beverages Australia Pty Ltd	1,832.3 (12/04)	Associated British Foods Plc	Public	UK

Company by sector	Sales revenue ($m) (financial year)	Corporate owner (as at December 2005)	Type of ownership	Location of head office
Goodman Fielder	2,326.9 (6/05)	Burns Philp and Company	Public	Australia
Inghams Enterprises Pty Limited	1,487.0 (7/05)	Inghams Enterprises Pty Limited	Private (family owned)	Australia
IBM Australia and New Zealand Limited	3,753.6 (12/04)	IBM Corporation	Public	USA
Kimberly-Clark Holdings	1,148.9 (12/04)	Kimberley-Clark Corporation	Public	USA
Lion Nathan Australia	1,143.5 (9/04)	Lion Nathan Limited	Public	Australia
McDonald's Australia	2,000.0 (6/05)	McDonald's Corporation	Public but 70% of Australian stores are owned by franchisees	USA
Murray Goulburn Co-operative Co. Limited	1,869.0 (6/05)	Murray Goulburn Co-operative Co. Limited	Cooperative	Australia
National Foods***	1,214.7 (6/04)	San Miguel	Public	Philippines
Nestlé Oceania	2,411.8 (12/04)	Nestlé S.A.	Public	Switzerland
Sugar Australia	350.0 (6/05)	CSR Limited (75%) and Mackay Sugar Co-operative Association Limited (25%)	Joint venture between a public corporation and a cooperative	Australia
Unilever Australia Ltd	1,158.1 (12/04)	Unilever Group	Public	Netherlands and UK
Raw material suppliers				
Bluescope Steel	7,981.6 (6/05)	Bluescope Steel	Public	Australia
Qenos Pty Ltd	774.3 (12/04)	Exxon Mobil (50%) and Orica (50%)	Joint venture between 2 public companies	Australia and USA
Total sales revenue	**132,859.3**			

* By late 2005 Graeme Hart's private company Rank Group (New Zealand) had purchased over 70% of Carter Holt Harvey (CHH) and the directors of the company recommended that shareholders sell their remaining shares to Rank Group (ABC News Online, 2005). Rank

Group assumed 100% of the company and it was de-listed from the Australian stock exchange in April 2006 (ABC News Online, 2006).

** Coles Myer sold its Myer department stores in March 2006 to private companies Newbridge Capital and The Myer Family Company (Coles Myer Limited, 2006) and changed its name to Coles Group. In November 2007 it was acquired by public company Wesfarmers Limited (Coles Group, 2007).

*** National Foods was acquired by Japanese brewery Kirin Holdings, a public company, in November 2007 (The New York Times, 2007).

Appendix 3: Product stewardship indicators

(1) Product-oriented environmental policies, objectives and targets

NPC Mark I makes little reference to corporate policy or strategy apart from stating that the packaging supply chain will '[i]mplement product stewardship policies and practices' (ANZECC, 1999, p. 7). However, the environmental management literature recognises the importance of corporate leadership in setting appropriate policies, objectives and targets. One of the requirements of AS/NZS ISO 14001, the international standard for environmental management systems (Standards Australia and Standards New Zealand, 2004, p. 4), is an environmental policy which 'includes a commitment to comply with applicable legal requirements and with other requirements to which the organisation subscribes which relate to its environmental aspects' and 'provides the framework for setting and reviewing environmental objectives and targets'. According to Sadgrove (1992, p. 30), an environmental policy should include reference to products along the lines of '[w]e will aim to produce products/services that are useful or beneficial. Wherever possible, our products will be recyclable. We will not produce or sell products that harm people or the world.' As discussed earlier, some companies specifically refer to the NPC or PS in their environmental policy.

Ideally a commitment to PS should also be reflected in more specific objectives and targets in documents which are regularly updated, such as an environmental or business plan. Gray and Bebbington (2001) suggest that 'specific targets, which should be transitory and developing, should be referred to in the [environmental] policy but *not specified*; that should be done in supporting documents' (Gray and Bebbington, 2001, p. 67, emphasis in original). For example, Kimberley-Clark Australia (2005, p. 5) has issued a series of corporate environmental performance standards to provide more detailed guidance on packaging objectives and targets. These include a standard on solid waste management and a 'guidance note' on packaging, which states that 'Kimberley-Clark's worldwide operations will reduce the amount of transportation and final product packaging utilized by each of the Corporation's businesses by at least ten percent by year-end 2005, using 2000 packaging amounts as the baseline year' .

(2) Resource allocation

The NPC requires companies to 'provide financial support for kerbside and other recycling systems' (ANZECC, 1999, p. 7). Covenant signatories must make annual contributions to the kerbside transitional fund, and these are calculated on the basis of company size and sector. Beyond this, the NPC requires each action plan to identify the 'major commitments, financial resources and arrangements that will be put in place [to] address all Covenant undertakings relevant to the signatory' (ANZECC, 1999, p. 10). Building an internal capability to implement PS requires the allocation of appropriate financial resources and assignment of responsibilities to staff members. The allocation of resources indicates that the company is serious about taking action, i.e. that it plans to go beyond 'business-as-usual'. At a minimum, there needs to be someone within the company with allocated responsibility to coordinate PS activities, normally someone in corporate affairs or environment, and a budget for implementation. Responsibility for implementation should be spread across all business functions, with clear mechanisms for accountability. For example, National Foods has allocated responsibilities for NPC-related actions to site operations managers and the National Environmental Manager and these responsibilities have been included in job descriptions (National Foods Limited, 2004, p. 14).

(3) Product-oriented environment management system

There is no requirement for an EMS in the NPC, although it does require companies to establish performance objectives and a reporting system (ANZECC, 1999). An EMS is a set of management processes and procedures which allows an organisation to 'analyse, control and reduce the environmental impact of its operations and services to achieve cost savings, greater efficiency and oversight, and streamlined regulatory compliance' (Schaltegger *et al.*, 2003, p. 296). It is governed by voluntary standards such as ISO 14001, which requires a company to establish an environmental policy, implementation plans, a monitoring and evaluation system and regular management reviews (Standards Australia and Standards New Zealand, 2004)[119]. According to ISO 14001 an EMS should

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[119] Another commonly used standard in Europe is the European Union's Eco-management and Audit Scheme (EMAS).

cover the environmental impacts of 'activities, products and services', although most of the emphasis is on site-level impacts. Product-related requirements, for example DFE, are often not addressed, although Ammenberg and Sundin (2005b, p. 418) have concluded that, because many flows of material and energy are related to products, manufacturing companies which are certified to the standard should be required to have:

- product-related language in their environmental policy;

- identified issues in relation to products and product development processes as significant environmental aspects;

- environmental objectives and/or targets concerning products;

- procedures to ensure that product development is handled within the EMS.

The lack of clarity in ISO 14001 and other EMS standards about the treatment of products and the perceived need to embed DFE within business systems has led to the development of models for a 'product oriented environmental management system' (POEMS), which is 'an environmental management system with a special focus on the continuous improvement of a product's eco-efficiency (ecological and economic) along the life cycle, through the systematic integration of eco-design in the company's strategies and practices' (Rocha and Brezet, 1999, p. 32). It was originally promoted by the Dutch Government through research and pilot studies in the late 1990s (Klinkers *et al.*, 1999; Rocha and Brezet, 1999). Most of the POEMS models which have been proposed include the following steps (Ammenberg and Sundin, 2005a, pp. 407–8):

- a review of the product portfolio from a life cycle perspective to identify environmental impacts and aspects, as well as DFE capabilities;

- establishment of responsibilities and procedures including definition of roles and responsibilities for DFE, establishment of policies, objectives and targets, and revision of the policy development process;

- development of DFE projects;

- audit or evaluation, including revision of existing procedures and products aiming for continual improvement.

Product-oriented environmental management is a strategic extension of site-based environmental management and ideally should be integrated within an existing EMS rather than being run as a parallel system (Klinkers *et al.*, 1999), as IBM has achieved:

> The corporation has taken a two-tiered approach to addressing the requirements of ISO 14001, both at the corporate level and also at the business unit level. At the corporate level, IBM has developed a list of significant environmental aspects applicable to IBM products, as well as objectives and targets for products addressing issues such as reuse and recyclability, upgradability, use of recycled materials, and improvements in energy efficiency. For IBM's major product lines, Product Environmental Team Leaders are responsible for determining what significant aspects are applicable to his/her product line ... The product lines in turn establish objectives and targets to support the corporate goals, as well as a management program to achieve the targets and objectives (IBM, n.d.).

(4) Product-based accounting

Environmental accounting systems identify, measure, analyse and interpret information about the environmental aspects of company activities, and may include monetary data such as environment-related costs and savings, and physical data such as use, flows and impacts of energy, water and materials (IFAC, 2005; Schaltegger *et al.*, 2003). Their purpose is no different to conventional accounting systems: 'Accountants gather data and provide purpose-oriented information for management as an aid to decision-making and as a basis for fulfilling accountability to external and internal stakeholders' (Schaltegger *et al.*, 2003, p. 251). Environmental accounting systems can be used to support internal decision making as well as reporting to external stakeholders.

The NPC does not provide any detail on accounting beyond the requirement that action plans '[e]stablish measurable performance objectives and mechanisms to monitor their achievement' (ANZECC, 1999, p. 11) and that NPC annual reports should include information on performance against objectives. Clearly this process would be facilitated by some form of product-based accounting. Financial data could be collected on the costs of product-related environmental activities such as research and development, or support for external recycling and litter programs. Physical data could be collected on the types of packaging used and their environmental impacts such as embodied energy and post-consumer waste. The International Federation of Accountants (IFAC, 2005, p. 33) recommends that packaging be measured as both a *material input* (packaging used to ship final goods) and a *product output* (packaged products). For example, Cadbury Schweppes

(2004) developed a basic packaging materials database for their Australian businesses with information on packaging type, recycled content and recyclability and has partly implemented a database system to record the weight of packaging used by the company each year. IBM (2004) has a global Master Packaged Product Database with information on the type and weight of packaging used, and PS objectives and targets are monitored through their EMS.

More rigorous data collection is required under NPC Mark II (NPCC, 2005, p. 18) because companies have to report annually against key performance indicators (KPIs) such as the total weight of consumer packaging used each year, total weight of products packaged, energy and water used to produce packaging, recycled content and the total weight of 'non-recyclable' packaging sold.

(5) Product stewardship reporting

In recent years there has been growing pressure on companies to report on their environmental and social impacts in addition to financial performance. This is referred to as 'triple bottom line' or sustainability reporting. An important driver is expanding globalisation, which means that all parties—including corporations—are seeking new forms of accountability that credibly describe the consequences of business activities wherever, whenever, and however they occur (GRI, 2002). There are now several international standards for sustainability reporting, two of the most prominent being the Global Reporting Initiative (GRI, 2002) guidelines and the AA1000 Assurance Standard produced by the UK-based Institute of Social and Ethical Accountability (AccountAbility). However, a recent survey of sustainability reporting in Australia found that only 23% of respondent companies researched for the project had produced a stand-alone sustainability report or a sustainability section within an annual report or website, although the number of reports and the extent of external verification are increasing (Centre for Australian Ethical Research *et al.*, 2004).

Public reporting is an important element of the NPC. At a minimum, NPC signatories are required to report on PS activities through their annual reports to the NPCC, which were

originally published on the PCA's website[120]. A PS report could also be included in a stand-alone document, or in a sustainability report, annual report or corporate website.

(6) Environmental assessment of products

Environmental assessment is important in providing benchmark data and helping to identify priorities for environmental design. Environmental impact databases, for example on the life cycle impacts of materials and processes, can be a valuable resource for design teams involved in DFE projects (Pujari *et al.*, 2003). A method commonly used for more rigorous environmental evaluations is life cycle assessment (LCA). This is used to assess the environmental aspects and potential impacts associated with a product (Standards Australia and Standards New Zealand, 1997). LCA has been widely used in the packaging industry (e.g. Bovea *et al.*, 2006; Boyden *et al.*, 1991; Brachfeld *et al.*, 2001; Lee and Xu, 2004; Ross and Evans, 2003; Tellus Institute, 1992).

While LCA is not specifically mentioned in the NPC it does state that signatories will, as appropriate, 'conduct and facilitate research into environmental and life cycle issues involving the manufacture, distribution, recovery and/or disposal of packaging' (ANZECC, 1999). The Environmental Code of Practice for Packaging (ECoPP) encourages designers to evaluate the environmental impacts of products over their total life cycle. One of the few Australian companies which regularly uses LCA to evaluate packaging designs is Orica. One of their 'Challenge 2005' targets for product stewardship was to conduct a 'life cycle risk assessment' for all major product groups which would 'review potential impacts of products from their origin to their disposal' (Orica, 2004a, p. 5). A division of Orica—Dulux—used LCA in 2003 to compare the environmental impacts of steel and polypropylene paint containers (Dulux, 2004, p. 4).

(7) Research and development

The NPC identifies research as one of the areas in which signatories should take action 'as appropriate'. While suggesting that they should conduct and facilitate research into

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[120] Until 2007 all NPC action plans and annual reports for NPC Mark I were published on the PCA's website at www.packcoun.com.au but they were removed following a redesign of the site. Since mid-2007 action plans and reports for NPC Mark II have been published on the new NPCC site at www.packagingCovenant.org.au/page.php?name=actionplans (viewed 17 September 2007).

'environmental and life cycle issues involving the manufacture, distribution, recovery and/or disposal of packaging' it also states that the research 'should seek, among other things, to identify new end-uses for secondary materials that are essential for the sustainability of the recycling system' (ANZECC, 1999, p. 5). Elsewhere it is suggested that signatories '[c]ontribute to research and development into product design to achieve waste reduction' (ANZECC, 1999, p. 11).

The DFE literature recognises the importance of research into new materials, technologies, and processes to identify opportunities for environmental product development (Rocha and Brezet, 1999). While the NPC focuses strongly on waste reduction and recycling, research could also be used to reduce environmental impacts in other parts of the life cycle, for example greenhouse gas emissions or waterborne wastes from the manufacturing process. For example, while Visy has an active research and development program which conducts research into issues such as the replacement of non-recyclable waxed cardboard boxes with recyclable containers, they also look at issues which have impacts throughout the product life cycle, for example the replacement of heavy metal-based pigments in plastic packaging (Visy Industries, 2003).

Research and development may need to be undertaken in conjunction with companies further up the supply chain (Klinkers *et al.*, 1999). This approach is used in the Australian packaging supply chain. For example a group of companies in different sectors is working together to improve the recyclability of polypropylene packaging (Polysearch, 2005).

(8) Design for Environment

DFE is a critical component of PS because most of the environmental impacts of a product are 'locked in' at the design stage. This is when materials are selected and product performance, including efficiency and recyclability, is largely determined (Lewis *et al.*, 2001, pp. 12–13). DFE, also called 'green design' or 'environmental new product development', means that the designer has considered the environmental impacts of a product during the design process. A definition of DFE which is useful for the evaluation of corporate performance is provided by Pujari *et al.*(2003, p. 658). They define 'environmental new product development' as 'product development into which

environmental issues are explicitly integrated in order to create one of the least harmful products a firm has recently produced'.

DFE differs from conventional new product development (NPD) processes in several ways, for example through considering customers' environmental concerns, a focus on the physical product life cycle, a focus on post-consumer waste management, and evaluation of supply chain impacts (Pujari *et al.*, 2003). To be effective, DFE needs to be integrated into a company's NPD process. It also requires coordination among different functions of the company, including business development, purchasing and supplier management, product development, manufacturing, marketing and sales (Rocha and Brezet, 1999).

DFE is referenced in the NPC in a number of ways. One of the areas in which signatories are required to take action (where appropriate, as not all signatories are directly involved in product development) is design: 'In designing packaging, careful consideration will be given to its possible effect on the environment from manufacturer to end user as well as its recovery (including reuse and recycling) and/or final disposal' (ANZECC, 1999, p. 5). The 'Industry strategy for sustainable recycling' which forms part of the NPC (Schedule 3) includes a commitment to develop 'covenant friendly' packaging based on an environmental checklist and the ECoPP. However, like many of the actions within the NPC, the implementation of ECoPP is suggested rather than required. The NPC states that the packaging supply chain will '[s]eek wider recognition and implementation by companies of the Environmental Code of Practice for Packaging' (ANZECC, 1999, p. 8).

At a minimum, companies should be able to demonstrate that they use the ECoPP. More proactive companies have integrated ECoPP in the NPD process through formal policies and procedures which ensure that all products are designed with consideration for environmental impacts. For example, National Foods has developed its own Packaging Development Code of Practice, based on ECoPP, and environmental assessments are undertaken for all new products. Milk crates now contain some with recycled content and the company has switched to more recyclable plastics for some consumer packaging (National Foods Limited, 2005).

(9) Procurement

PS requires a certain level of engagement and cooperation across the supply chain. This is recognised in the NPC, which states in the section on design that '[p]ackage designers should work with the *packaging chain* (from design to reuse) to ensure that opportunities for waste minimisation, secondary market creation and the reduction of litter are taken' (ANZECC, 1999, p. 5, emphasis added). The NPC also suggests that signatories apply the principles of the covenant in 'the purchase of raw materials', the 'purchase of packaged goods and paper' and the 'purchase of recycled materials' (p. 6).

An assessment of the environmental impacts and practices of suppliers is a logical first step outside the traditional boundaries of the firm for companies aiming to implement product-oriented environmental management (Klinkers *et al.*, 1999). This activity, often called 'environmental procurement' or 'sustainable procurement', means that suppliers are assessed on environmental performance as well as quality, price, service and delivery. This is consistent with a broader shift in supply chain management beyond its traditional focus on purchasing and logistics to a broader focus on value creation throughout the entire product chain. Supply chain partners are starting to work together to reduce the costs of a product from manufacturing through to delivery of the product to the consumer (Klinkers *et al.*, 1999). For example, waste reduction and resource efficiency strategies can add value and are becoming important elements of modern supply chain management (GEMI, 2004; Verghese and Lewis, 2007). Environmental procurement has also been promoted in Australia for many years through a number of government and industry initiatives (e.g. BRBA, 2001; DAS, 1992).

The active involvement of suppliers is particularly important in delivering environmental outcomes in the NPD process (Pujari *et al.*, 2003). Suppliers often have knowledge about 'best practice' initiatives in other sectors or overseas and technical expertise which can be drawn on for material and product testing. Supply chain management for PS can be relatively informal—companies may collaborate with suppliers on joint projects or encourage them to reduce the environmental impacts of their products. More progressive companies are likely to have a documented environmental procurement policy or a 'code of conduct' which requires minimum standards of environmental performance from suppliers (NZBCSD, 2003). McDonald's Australia has an environmental procurement

policy and suppliers are required to report on environmental initiatives in their quarterly business reviews. A number of collaborative research projects have been undertaken with suppliers to reduce product impacts (McDonald's Australia Ltd, 2003).

(10) Cleaner production

Cleaner production involves 'turning a waste into a product, avoiding making waste in the first place and, often, simply better housekeeping' (Unglick, 1996, p. 83). Cleaner production policies have been promoted by state and federal governments in Australia since the 1980s and many companies have implemented it as an environmental management and cost-saving strategy (e.g. ANZECC, 1998; Dames and Moore, n.d.; Victorian EPA, 1997). While PS tends to emphasise the impacts of a product's life cycle beyond the factory gate, i.e. in the supply chain and at end-of-life, cleaner production is an important tool in minimising the impacts of a product at the point of manufacture. It covers all forms of waste including solid, airborne, waterborne and hazardous waste streams. The NPC does not specifically mention cleaner production, although it does refer to production at several points. For example, it states that signatories should 'make commitments to continuous improvement of environmental and waste minimisation outcomes in the *production*, use, sale and/or reprocessing and recovery of packaging materials' (ANZECC, 1999, emphasis added).

Corporate responsiveness to cleaner production can be demonstrated through a formal commitment, for example in a company's environmental policy (Dames and Moore, n.d.). Lion Nathan's environmental policy includes a commitment to '[i]mplementing environmental management programs—to reduce our environmental impacts, *prevent pollution*, reduce risk of harm to the environment and continually improve our performance' (Lion Nathan, 2005, emphasis added). It can also be demonstrated through public reporting of cleaner production initiatives. More proactive companies tend to have a 'zero waste' goal which requires a commitment to both cleaner production and recycling of production waste, and can show that significant progress has been achieved.

(11) Recycling of commercial and industrial waste

Cleaner production tries to eliminate waste at source, but any waste which *is* generated during manufacturing and which cannot be reused in another process should ideally be

recycled. In a manufacturing facility this could include the recovery of wastes such as office paper, transport packaging which is used to deliver raw materials and other products to the site (pallets, stretch film, corrugated boxes etc.) and wastes from the production process. Waste is also generated by retailers, for example the transport packaging which is removed at distribution centres and retail outlets.

State governments in Australia have promoted the reduction and recycling of commercial and industrial wastes through grants, education and recognition programs for many years (e.g. Sustainability Victoria, 2008). While the NPC does not mention recycling of in-house solid waste, this is covered (like cleaner production) in the general references to the production process. Most companies could be expected to recycle materials which have good markets, such as corrugated cardboard and timber pallets. More proactive companies are likely to have ambitious waste reduction goals and to have found end-markets for most of their waste materials. For example, Foster's collects and recycles paper, beverage packaging and batteries from their offices; recycles most of its manufacturing waste and incoming packaging at manufacturing plants; and is working with BIEC to develop markets for more difficult materials such as PET strapping (Foster's Group, 2004a).

(12) Environmental marketing strategies

While the NPC does not mention environmental marketing beyond the use of product labelling, sales and marketing personnel have an important role to play in product-oriented environmental management (Klinkers *et al.*, 1999). The marketing department tends to be actively involved in specifying products and their packaging and is also in direct contact with consumers. One of the main drivers for manufacturers to design environmentally improved products is the potential to increase sales by promoting a product's environmental benefits. A narrow interpretation of environmental marketing is that it involves strategies aimed at increasing sales of products to a target group of consumers who have been identified as 'environmentally aware'. During the late 1980s many companies tried to capitalise on growing environmental awareness by developing and promoting 'green products', often with dubious claims of environmental friendliness (Banerjee, 1999). This resulted in the development of guidelines, standards and codes designed to stop the use of false or misleading environmental claims (e.g. ACCC, 1999; ICC, 2001; Standards Australia and Standards New Zealand, 2000).

Environmental marketing involves labelling, advertising and other forms of external communication, but the marketing department can also get involved at a more strategic level in business decisions about corporate values, product mix and product design to ensure that environmental objectives are integrated across all business functions (Banerjee, 1999). As discussed above, Visy is an example of a company which is trying to position itself as a leader in product stewardship and corporate responsibility. An extensive television advertising campaign promoted both the recyclability of their packaging and their capacity to collect and recycle it at the end of its life under the slogan 'we make it, we take it' (Visy Industries, 2003, p. 2).

(13) Product labelling

An important element of any marketing campaign is the communication of important information to consumers. This may include information on the environmental attributes of the product. Environmental labelling on products usually takes one of two forms, both of which are covered by international standards:

- self-declared environmental claims (Standards Australia and Standards New Zealand, 2000);

- third-party certified environmental claims (ISO, 1999).

The NPC requires signatories, in their action plans, to 'provide examples of labelling / provision of information to provide the general community with details about waste minimisation, reuse, recycling and litter information' (ANZECC, 1999, p. 11). The most common environmental claims on packaging are 'self-declared statements' (i.e. not certified by a third party) about recyclability, recycled content or correct disposal, often accompanied by recycling or anti-litter symbols. More detailed information may refer to the fibre or bleaching processes used for the manufacture of paper (e.g. 'sourced from sustainably managed forests' or 'chlorine-free bleaching') or provide specific advice to consumers on how to recycle. Some examples are provided in Figure 29.

Figure 29: Examples of environmental labels

'Mobius loop' symbol of recyclability Source: Standards Australia and Standards New Zealand (1999)	
'Mobius loop' symbol of recycled content Source: Standards Australia and Standards New Zealand (1999)	
Plastics identification code Source: PACIA (2003)	
'Tidyman' anti-litter logo Source: http://www.litter.vic.gov.au/www/html/1320-tidyman-logo.asp, viewed 1 September 2008	

A review of international environmental labelling schemes concluded that they were effective in promoting sales of environmentally preferable products, or in encouraging manufacturers to address environmental issues in the design of products (AELA, 2004). There are third party schemes which certify that a product or package conforms to a particular environmental performance standard (often called environmental labelling schemes or 'eco-labels'). The Australian eco-labelling scheme does not have a standard for packaging but other standards may apply, for example those for 'recycled paper products' or 'compostable biopolymers' (GECA, n.d.). Another relevant program is the Forest Stewardship Council's certification of forestry practices used for the manufacture of paper packaging (FSC, 1996).

(14) Product recovery

The NPC emphasised the *life cycle* environmental management of packaging and paper products (ANZECC, 1999) but one of the most significant environmental issues for packaging is the waste generated at end-of-life. The negotiation of the Kerbside Schedule to the NPC proved to be a long and contentious process, which finally resulted in an agreement that local government was responsible for the costs of kerbside collection. The packaging supply chain as a whole agreed to (ANZECC, 1999, Schedule 3):

- contribute to the kerbside transitional fund to fund improvements to kerbside collection systems and market development for recyclable materials;

- provide facilities for the reprocessing of packaging materials which would be purchased from local government at market rates (i.e. not subsidised);

- support the development of secondary markets for recycled materials;

- improve the recyclability of packaging.

Key stakeholders, including ENGOs, local government and many state governments, expect the packaging supply chain to take greater responsibility for the recovery and reprocessing of packaging waste. The most commonly used system for the recovery of packaging in Australia is material recycling[121]. The packaging is collected either through household kerbside collection systems organised by councils, or by commercial operators collecting industrial waste. The minimum expectation for all companies in the packaging supply chain is that they contribute to the kerbside transitional fund and label products to encourage recycling by consumers. Many of the largest packaging manufacturers are also directly involved in the collection and reprocessing of packaging materials. For example, Visy Recycling operates kerbside collection and sorting facilities and reprocesses paper, while Owens-Illinois (previously ACI Glass) contracts Visy to sort collected glass into different colours which they then use to make new containers. Many raw material suppliers, packaging manufacturers and brand owners have also provided financial support to industry-wide recycling and litter control programs through associations such as BIEC, the Steel Can Recycling Council and the Aluminium Can Group.

(15) Litter management

A survey of packaging stakeholders in 2003 found that the most commonly mentioned problem with packaging was litter and its impacts on wildlife and visual amenity (Lewis, 2005). As the analysis of packaging discourses in Chapter 4 revealed, litter is of concern to many industry stakeholders, particularly ENGOs and local government. However, litter is rarely mentioned in the NPC apart from a reference to product labelling on correct

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[121] The other system which is commonly used in other parts of the world, particularly Europe and Japan, is incineration of mixed domestic waste with energy recovery.

disposal. The ECoPP also includes the statement that '[t]he packaging designer/manufacturer and filler should jointly assess the possibility of the packaging being littered' (AIG *et al.*, 1997, p. 7)

The minimum expectation of companies is therefore that they include information for consumers on appropriate disposal, for example through the use of a recognisable anti-litter logo (e.g. the 'Tidyman' logo in Figure 28). More progressive companies contribute funding to anti-litter education and clean-up programs and should be able to demonstrate that they have redesigned packaging to reduce its impacts in the litter stream. As discussed in Chapter 4, beverage manufacturers and their packaging suppliers have funded anti-litter campaigns since the late 1970s through LRA and later BIEC. McDonald's currently sponsor the activities of Clean Up Australia and regularly clean up litter in the vicinity of their stores (McDonald's Australia Ltd, 2003). Metcash offers its retail customers a degradable plastic bag which breaks down faster than conventional polymers (Metcash, 2005) and is therefore designed to have a lower impact in the litter stream.

(16) Participation in voluntary environmental programs

Participation in voluntary environmental programs is an indicator of a company's commitment to PS, i.e. its willingness to go 'beyond compliance' in reducing the life cycle environmental impacts of its products. Within Australia packaging manufacturers are expected to become a signatory to the 'voluntary' NPC and submit regular action plans and annual reports on progress. Indicators of responsiveness include the year that a company signed the covenant—some companies signed the covenant at its inception in 1999 whereas others signed up much later into its five-year term—and compliance with reporting requirements. An evaluation of the NPC found that many companies failed to submit reports on time (Nolan-ITU, 2004, p. 14).

Other voluntary environmental programs during the evaluation period included:

- recycling and litter control programs run by industry associations such as BIEC, PACIA and AFGC;

- the federal government's *Greenhouse Challenge* program[122]

- the Victorian Government's *Waste Wise* program[123];

- the *Buy Recycled Business Alliance[124]*;

- the plastic and chemical industries' *Responsible Care* program.

(17) Consultation and communication with stakeholders

NPC Mark I required all signatories to '[c]o-ordinate education and promotion programs and establish an accessible communications framework to facilitate information collation and dissemination' while the list of options for signatories listed in Schedule 1 included '[u]ndertake education and community awareness programs'(ANZECC, 1999, p. 6). However, an effective and meaningful commitment to PS can only be developed through *engagement* with key stakeholders, which goes beyond education and information dissemination. Proactive companies are those which consult with stakeholders about their perceptions and expectations and take these views into account when developing product-related strategies. For example, Amcor surveyed some key stakeholder groups in 2002 to identify their concerns in relation to environmental issues, and the dialogue was expanded in 2003 to incorporate co-workers and more customers. One of the key environmental issues raised by Amcor's stakeholders was the impacts of the company's products after they have been used (Amcor Limited, 2004b, p. 8). During the review of NPC Mark I, one non-government organisation stated that 'there has been no engagement of non-industry stakeholders at all; NGOs or consumers. There should be a requirement in action plan development for community and worker consultation' (Nolan-ITU, 2004, p. 34).

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[122] Now called 'Greenhouse Challenge Plus', signatories agree to voluntarily work with the Australian Greenhouse Office to increase energy efficiency and reduce greenhouse gas emissions (DEWHA, 2008).

[123] EcoRecycle Victoria (now Sustainability Victoria) runs a voluntary program called 'Waste Wise' in which companies can voluntarily commit to a waste reduction and recycling program (Sustainability Victoria, 2008).

[124] Members of the Buy Recycled Business Alliance (BRBA) commit to purchase and use recycled products and materials (BRBA, 2008).

Appendix 4: Framing corporate responsibility for packaging

Key words used by companies in their public statements (NPC action plans and reports, corporate annual reports, environment or sustainability reports, and websites) to describe their corporate responsibilities for packaging.

Company	Product stewardship	Sustainability	Responsible Care	CSR
Packaging manufacturers				
Visy Industries	✓	✓		
Amcor Australasia	✓	✓		
Carter Holt Harvey	✓	✓		
Huhtamaki Australia Pty Ltd	✓	✓		
ACI	✓			
Retailers				
Bunnings Group Limited	✓	✓		
Coles Myer Limited	✓			
David Jones Limited				
Metcash Trading Limited	✓			
Woolworths Limited	✓			
Brand owners				
Bonlac Foods Limited				
Cadbury Schweppes Limited	✓			✓
Coca-Cola Amatil	✓			✓
Dulux	✓	✓	✓	
Fisher & Paykel Appliances Australia Ltd	✓			
Foster's Group	✓	✓		
George Weston Foods Limited				
Goodman Fielder	✓			
Inghams Enterprises Pty Limited	✓			
IBM Australia and New Zealand Limited	✓			
Kimberly-Clark Holdings		✓		
Lion Nathan Australia	✓	✓		
McDonald's Australia				
Murray Goulburn Co-operative Co. Limited	✓			
National Foods	✓			
Nestlé Oceania	✓			
Sugar Australia	✓			
Unilever Australia Ltd		✓		
Raw material suppliers				
Bluescope Steel	✓			
Qenos Pty Ltd	✓		✓	
Total number	**24**	**10**	**2**	**2**

Source: Evaluation of company reports

Appendix 5: Results of the product stewardship evaluation

Sector and company	Management						Product development				
	PS policy	Resource allocation	EMS	Product-based accounting	Public reporting	Average score	Environmental assessment	R&D	Design for environment	Procurement	Average score
PACKAGING MANUFACTURERS	**1.4**	**1.2**	**1.7**	**0.9**	**1.5**	**1.3**	**0.7**	**1.5**	**1.3**	**1.4**	**1.2**
1. Visy Industries	3.0	1.0	2.0	2.0	1.0	**1.8**	1.0	2.5	3.0	2.0	2.1
2. Amcor Australasia	1.5	1.5	2.5	1.0	2.0	**1.7**	1.5	2.0	1.5	1.0	1.5
3. Carter Holt Harvey	0.5	1.0	1.0	0.0	2.0	**0.9**	0.0	1.0	0.5	1.5	0.8
4. Huhtamaki Australia Pty	1.5	1.5	2.0	1.0	1.5	**1.5**	0.5	1.0	0.5	1.0	0.8
5. ACI Operations Pty Ltd	0.5	1.0	1.0	0.5	1.0	**0.8**	0.5	1.0	1.0	1.5	1.0
RETAILERS	**0.6**	**0.8**	**0.2**	**0.4**	**1.2**	**0.6**	**0.4**	**0.2**	**0.5**	**1.0**	**0.5**
6. Woolworths	0.5	1.0	0.0	0.5	2.0	**0.8**	0.5	0.5	0.5	1.5	0.8
7. Coles Myer Limited	0.5	1.0	0.0	0.5	2.0	**0.8**	0.5	0.0	0.5	1.5	0.6
8. Metcash Trading Limited	0.0	1.0	0.0	0.5	0.5	**0.4**	1.0	0.5	1.0	0.5	0.8
9. David Jones Limited	0.5	0.0	0.0	0.5	0.5	**0.3**	0.0	0.0	0.0	0.5	0.1
10. Bunnings Group	1.5	1.0	1.0	0.0	1.0	**0.9**	0.0	0.0	0.5	1.0	0.4
BRAND OWNERS	**1.6**	**1.5**	**1.4**	**1.3**	**1.4**	**1.4**	**1.4**	**1.3**	**1.6**	**1.4**	**1.4**
11. Nestlé Oceania	2.0	2.0	1.0	1.5	2.0	**1.7**	2.5	2.0	3.0	2.5	2.5
12. Bonlac Foods Limited	1.0	1.0	2.0	1.0	1.0	**1.2**	0.0	0.0	0.5	0.5	0.3
13. Goodman Fielder	1.0	1.0	1.0	0.0	0.5	**0.7**	0.5	1.0	0.5	1.0	0.8
14. Sugar Australia	1.0	1.0	1.0	0.5	1.5	**1.0**	0.0	1.0	1.0	0.0	0.5
15. Cadbury Schweppes	1.0	2.0	1.5	1.5	1.5	**1.5**	2.5	2.5	2.0	1.5	2.1
16. National Foods	1.5	2.5	1.0	2.0	1.5	**1.7**	2.0	1.0	2.5	1.5	1.8
17. Coca-Cola Amatil	1.0	1.5	2.0	1.5	1.5	**1.5**	1.0	1.0	1.5	1.5	1.3
18. Foster's Group	2.0	2.0	1.0	1.5	1.5	**1.6**	2.0	2.0	3.0	2.0	2.3
19. McDonald's Australia	1.0	2.0	0.5	2.5	1.5	**1.5**	2.0	0.5	1.5	2.0	1.5
20. George Weston Foods	2.0	1.5	2.0	1.5	2.0	**1.8**	1.0	0.5	1.5	0.5	0.9
21. Lion Nathan	1.5	2.0	2.0	2.0	1.5	**1.8**	2.0	1.5	2.0	2.0	1.9
22. Murray Goulburn Co-	1.0	1.0	0.0	0.0	0.5	**0.5**	0.0	0.5	0.5	0.5	0.4
23. Kimberly-Clark	3.0	1.5	3.0	2.0	3.0	**2.5**	2.0	2.5	2.5	2.5	2.4
24. Unilever	1.5	1.0	2.0	1.5	0.5	**1.3**	2.0	0.5	1.0	1.5	1.3
25. Inghams Enterprises	1.0	1.5	0.5	1.0	0.5	**0.9**	0.5	0.5	1.0	1.5	0.9
26. IBM	3.0	1.0	3.0	2.0	3.0	**2.4**	2.0	2.0	3.0	2.0	2.3
27. Fisher & Paykel	1.5	1.0	0.5	0.5	0.5	**0.8**	0.5	2.0	0.5	1.0	1.0
28 Dulux	2.0	1.0	1.0	1.5	2.0	**1.5**	2.5	2.0	1.5	1.0	1.8
RAW MATERIAL	**1.5**	**0.8**	**1.5**	**0.5**	**1.0**	**1.1**	**0.3**	**0.0**	**1.0**	**0.5**	**0.4**
29. Bluescope Steel	1.5	1.5	2.0	0.5	0.5	**1.2**	0.0	0.0	0.5	1.0	0.4
30. Qenos Holdings	1.5	0.0	1.0	0.5	1.5	**0.9**	0.5	0.0	1.5	0.0	0.5
INDUSTRY AVERAGE	**1.4**	**1.3**	**1.3**	**1.1**	**1.4**	**1.3**	**1.0**	**1.1**	**1.3**	**1.3**	**1.2**

Appendix 5 (cont.): Results of the product stewardship evaluation

Sector and company	Operations			Marketing			Corporate affairs/environment					AVERAGE
	Cleaner production	Recycling	Average score	Marketing strategies	Product labelling	Average score	Product recovery	Litter management	Voluntary programs	Communication	Average score	
PACKAGING MANUFACTURERS	**1.9**	**1.4**	**1.7**	**1.0**	**0.5**	**0.8**	**2.6**	**0.9**	**2.6**	**2.0**	**2.0**	**1.4**
1. Visy Industries	1.5	1.5	1.5	3.0	1.0	**2.0**	3.0	1.5	3.0	2.5	**2.5**	**2.0**
2. Amcor Australasia	2.0	1.5	1.8	1.0	1.0	**1.0**	3.0	1.5	3.0	3.0	**2.6**	**1.8**
3. Carter Holt Harvey	2.0	1.0	1.5	0.0	0.0	**0.0**	3.0	0.0	2.0	1.0	**1.5**	**1.0**
4. Huhtamaki Australia Pty	2.0	1.0	1.5	1.0	0.5	**0.8**	1.5	0.0	2.0	2.0	**1.4**	**1.2**
5. ACI Operations Pty Ltd	2.0	2.0	2.0	0.0	0.0	**0.0**	2.5	1.5	3.0	1.5	**2.1**	**1.2**
RETAILERS	**1.0**	**1.3**	**1.2**	**0.7**	**0.7**	**0.7**	**1.4**	**0.4**	**1.1**	**1.3**	**1.1**	**0.8**
6. Woolworths	1.5	2.0	1.8	1.0	1.0	**1.0**	1.5	1.0	1.5	1.5	**1.4**	**1.1**
7. Coles Myer Limited	1.0	1.0	1.0	1.0	1.0	**1.0**	1.5	1.0	1.5	1.5	**1.4**	**0.9**
8. Metcash Trading Limited	1.0	1.0	1.0	1.0	1.0	**1.0**	1.5	0.0	1.0	2.0	**1.1**	**0.8**
9. David Jones Limited	0.0	1.0	0.5	0.0	0.5	**0.3**	1.0	0.0	1.0	0.5	**0.6**	**0.4**
10. Bunnings Group Limited	1.5	1.5	1.5	0.5	0.0	**0.3**	1.5	0.0	0.5	1.0	**0.8**	**0.7**
BRAND OWNERS	**1.6**	**1.4**	**1.5**	**0.9**	**1.0**	**1.0**	**1.4**	**0.7**	**1.8**	**1.1**	**1.3**	**1.3**
11. Nestlé Oceania	2.0	1.5	1.8	1.0	1.0	**1.0**	1.5	2.0	3.0	2.5	**2.3**	**1.9**
12. Bonlac Foods Limited	1.0	0.0	0.5	0.0	0.0	**0.0**	0.5	0.0	1.5	2.0	**1.0**	**0.7**
13. Goodman Fielder	1.5	0.5	1.0	0.5	0.5	**0.5**	1.0	0.0	1.5	0.0	**0.6**	**0.7**
14. Sugar Australia	2.0	1.0	1.5	0.0	0.5	**0.3**	0.5	0.0	2.0	0.0	**0.6**	**0.8**
15. Cadbury Schweppes	1.5	1.0	1.3	1.0	1.0	**1.0**	2.0	1.5	3.0	1.5	**2.0**	**1.7**
16. National Foods	1.5	2.0	1.8	1.0	1.0	**1.0**	1.5	1.0	3.0	1.0	**1.6**	**1.6**
17. Coca-Cola Amatil	1.0	2.5	1.8	1.0	1.0	**1.0**	3.0	1.5	1.0	1.0	**1.6**	**1.4**
18. Foster's Group	2.0	2.0	2.0	1.0	1.0	**1.0**	2.0	2.0	3.0	1.0	**2.0**	**1.8**
19. McDonald's Australia	1.5	1.5	1.5	1.0	1.0	**1.0**	1.0	1.5	1.0	2.0	**1.4**	**1.4**
20. George Weston Foods	1.5	2.0	1.8	0.5	0.5	**0.5**	1.0	0.0	1.0	1.5	**0.9**	**1.2**
21. Lion Nathan	2.0	2.0	2.0	1.0	1.0	**1.0**	1.5	2.0	1.0	1.5	**1.5**	**1.7**
22. Murray Goulburn Co-	2.0	1.0	1.5	1.0	1.0	**1.0**	1.0	0.0	1.0	0.0	**0.5**	**0.6**
23. Kimberly-Clark Holdings	2.5	3.0	2.8	1.0	1.5	**1.3**	1.0	0.0	3.0	0.5	**1.1**	**2.0**
24. Unilever	0.5	0.0	0.3	1.0	1.0	**1.0**	1.0	0.0	1.5	1.0	**0.9**	**1.0**
25. Inghams Enterprises	1.0	1.0	1.0	1.0	1.0	**1.0**	1.0	1.0	1.5	1.5	**1.3**	**1.0**
26. IBM	2.0	2.0	2.0	2.0	3.0	**2.5**	3.0	0.0	3.0	2.0	**2.0**	**2.2**
27. Fisher & Paykel	1.5	1.0	1.3	1.0	1.0	**1.0**	1.5	0.0	1.0	1.0	**0.9**	**0.9**
28 Dulux	2.5	1.5	2.0	1.0	1.5	**1.3**	1.5	0.0	1.0	0.5	**0.8**	**1.4**
RAW MATERIAL	**1.8**	**1.5**	**1.6**	**0.8**	**0.8**	**0.8**	**2.0**	**0.0**	**2.3**	**1.0**	**1.3**	**1.0**
29. Bluescope Steel	2.0	2.0	2.0	1.5	1.0	**1.3**	2.0	0.0	1.5	1.0	**1.1**	**1.1**
30. Qenos Holdings	1.5	1.0	1.3	0.0	0.5	**0.3**	2.0	0.0	3.0	1.0	**1.5**	**0.9**
INDUSTRY AVERAGE	**1.6**	**1.4**	**1.5**	**0.9**	**0.9**	**0.9**	**1.7**	**0.6**	**1.9**	**1.3**	**1.4**	**1.2**

Appendix 6: Average responsiveness score by size (sales revenue)

Companies by sales category	Sales revenue ($m)	Average score
> $4 billion		
Coles Myer Limited	36185.2	0.9
Woolworths	31352.0	1.1
Bluescope Steel	7981.6	1.1
Metcash Trading Limited	6993.7	0.8
Coca-Cola Amatil	4149.6	1.4
Bunnings Group Limited	4100.0	0.7
Average		**1.0**
$3–4 billion		
Foster's Group	3972.3	1.8
IBM	3753.6	2.2
Carter Holt Harvey	3305.3	1.0
Visy Industries	3170.0	2.0
Average		**1.8**
$2–3 billion		
Amcor Australasia	2571.7	1.8
Nestlè Oceania	2411.8	1.9
Goodman Fielder	2326.9	0.7
Cadbury Schweppes	2155.0	1.7
Average		**1.5**
$1–2 billion		
McDonald's Australia	2000.0	1.4
Murray Goulburn Co-operative	1869.0	0.6
George Weston Foods Limited	1832.3	1.2
David Jones Limited	1799.1	0.4
Inghams Enterprises	1487.0	1.0
ACI Operations Pty Ltd	1259.1	1.2
National Foods	1214.7	1.6
Unilever	1158.1	1.0
Kimberly-Clark Holdings	1148.9	2.0
Lion Nathan	1143.5	1.7
Average		**1.2**
Less than $1b		
Fisher and Paykel Appliances	953.1	0.9
Qenos Holdings	774.3	0.9
Bonlac Foods Limited	712.6	0.7
Dulux	520.6	1.4
Sugar Australia	350.0	0.8
Huhtamaki Australia Pty Ltd	208.3	1.2
Average		**1.0**

Appendix 7: Average responsiveness scores by type of ownership

Company	Average score
Public corporations	
ACI Operations Pty Ltd	1.2
Amcor Australasia	1.8
Bluescope Steel	1.1
Bonlac Foods Limited	0.7
Bunnings Group Limited	0.7
Cadbury Schweppes Limited	1.7
Coca-Cola Amatil	1.4
Coles Myer Limited	0.9
Dulux	1.4
David Jones Limited	0.4
Carter Holt Harvey	1.0
Fisher & Paykel Appliances Australia Ltd	0.9
Goodman Fielder	0.7
George Weston Foods Limited	1.2
Huhtamaki Australia Pty Ltd	1.2
IBM Australia and New Zealand Limited	2.2
Kimberly-Clark Australia	2.0
Metcash Trading Limited Australasia	0.8
Nestlé Oceania	1.9
Foster's Group	1.8
Lion Nathan Australia	1.7
National Foods	1.6
Unilever Australia Ltd	1.0
Woolworths Limited	1.1
Average	**1.3**
Privately owned	
Inghams Enterprises Pty Limited	1.0
Visy Industries	2.0
Average	**1.5**
Other (joint venture, cooperative, franchises)	
McDonald's Australia	1.4
Qenos Pty Ltd	0.9
Murray Goulburn Co-operative Co. Limited	0.6
Sugar Australia	0.8
Average	**0.9**

Appendix 8: Glossary

Biopolymer	A plastic manufactured from a renewable source, such as corn or cellulose.
Brand owner	A company that sells a packaged product under their own brand, including most product manufacturers and retailers who sell 'own brand' products. The Australian NEPM for Used Packaging defines a brand owner as the Australian owner of the trade mark under which a product is sold, the first person to sell an imported product, or the supplier of packaging used in-store (e.g. for plastic bags) (NEPC, 1999).
Contract fillers	A company that manufactures products for other brand owners, for example many food and beverage companies now manufacture products for retailers. These products are sold under the retailer's rather than the manufacturer's brand.
Design for environment (DFE)	A product design process which explicitly considers, and tries to minimise, the environmental impacts of the product.
Down counting	The retailers' policy of demanding that brand owners supply a smaller number of items in each box.
Extended producer responsibility (EPR)	The principle that manufacturers have financial or physical responsibility for the management of products at the end of their useful life, i.e. when they become a 'waste' product.
High density polyethylene (HDPE)	A type of plastic used to manufacture packaging, e.g. milk and detergent bottles.
Liquidpaperboard	A packaging material made of paper with a coating of low density polyethylene (LDPE), used to make milk and juice cartons.
Own brands	Brands owned by retailers. Retailers enter into a contract with existing manufacturers to develop and manufacture products and by doing so avoid the need to pay a premium for well-known brands. This is one strategy being pursued by retailers to reduce consumer prices and enhance profitability.
Packaging supply chain	All of the industry sectors involved in making, using or selling packaging, including raw material suppliers, packaging manufacturers, manufacturers of products which are distributed or sold in packaging, and retailers.
Packaging supplier	A manufacturer or importer that supplies packaging to product manufacturers (brand owners) or retailers.
Packaging raw material supplier	A manufacturer or importer that supplies raw materials, such as plastics, aluminium, rolled steel, liquidpaperboard, paper, cardboard, inks, pigments or adhesives, to packaging manufacturers.
Polyethylene terephthalate (PET)	A type of plastic used to manufacture packaging, e.g. soft drink bottles.
Polyvinyl chloride (PVC)	A type of plastic used to manufacture packaging, e.g. cordial bottles with handles.
Post-consumer waste	Packaging material generated by households or by commercial, industrial or institutional facilities in their role as end-users of the product (Based on NPCC, 2005, p. v). It excludes industrial waste generated during the manufacture of packaging, e.g. plastic or paper off-cuts.
Primary packaging	Packaging which is used to contain a product until the product is consumed (e.g., bottle, closure) (Saphire, 1994).
Product stewardship (PS)	The principle that a company assumes responsibility for the life cycle environmental impacts of its products, particularly at end-of-life, although this responsibility is shared with other

	stakeholders including suppliers, customers and local government.
Retailer	Any company that sells packaged products to consumers, including supermarkets, department stores, hardware stores and fast-food restaurants.
Secondary packaging	Transport, distribution or logistical packaging is used to ship goods from their point of origin, such as a farm or factory, to their destination. It often includes boxes, crates, pallets or cushioning material (e.g. expanded polystyrene) (Saphire, 1994).
Shelf-ready packaging	Shippers which do not need to be completed unpacked by the retailer. The shipper is designed to be partially unwrapped, for example by removing a shrink film over-wrap from a corrugated cardboard tray, and placed directly on the supermarket shelf. The aim is to reduce the retailer's labour costs in the store.
State government(s)	Australia has six state governments (New South Wales, Victoria, Queensland, Western Australia, South Australia and Tasmania) and two territory governments (the Australian Capital Territory and the Northern Territory). The powers of the states are protected in the Australian Constitution, whereas territories are subject to greater federal government control. For simplicity, the term 'state government(s)' is used in this thesis to refer to both states and territories.

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