

# CONSUMERISM AND PACKAGING: ENVIRONMENTAL EVILS AND THE NEW ZEALAND RESPONSE

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## I. INTRODUCTION

You get into a car that you haven't finished paying for yet and drive out of town very slowly, not by choice, but because everyone else is doing the same. You park in a huge concrete carpark (that used to be a real park) and enter an anonymous aircraft-hanger-style super clean warehouse with piped music and bored looking security "personnel" guarding the doors. You choose from a selection of over-priced, overwrapped, this size only, identical pre-cut sheets of wood, grab a packet of nails in a Houdini-proof plastic box from a 30 metre long neon-lit display rack and begin to queue at the counter. Six minutes later you pay by handing over your (membership has its privileges) credit card to a tired (I'll work 60 hours this week so I can buy that VCR) worker trapped behind the video-monitored checkout booth. You then drive home, slowly through gridlock, but enjoying the quality sound from the CD shuttle system and the cool breeze of the airconditioning blowing on your face. You suddenly wonder why you feel like you've spoken to no-one in the last two hours. A landfill creates an eye-sore on the side of the motorway and pricks your conscience. You start to worry about the environmental consequences of all that packaging and shrinkwrap.

Packaging and consumption are interrelated. They are environmental problems viewed from different perspectives. On one hand, producers use packaging to sell goods and, on the other hand, consumers purchase these goods. Modern day consumerist patterns create large volumes of waste. This is largely because of the increased amount of packaging used in production processes.

The purpose of this article is to examine New Zealand's response to the increased levels of packaging waste brought on by consumption. The article begins by examining the concepts of consumerism and packaging. It then analyses the international guidelines regarding consumption and packaging. The final part evaluates New Zealand's reaction to the international guidelines pertaining to packaging.

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## II. CONSUMERISM

The word “consumerism” is derived from the Latin term “consumere” which means “to take up wholly, to consume, waste, squander or destroy.” Consumerism, or perpetual consumption, is a social and economic creed that encourages humans to aspire to an ever-increasing share of the world’s resources regardless of the consequences. Consumerism encourages people to buy for the sake of buying, with little regard for the true utility of what is bought.

The environmental consequences of natural resource consumption are often borne by people other than those to whom the benefits of that consumption accrue. People living in industrialised countries, collectively known as the North, constitute a quarter of the Earth’s human population, yet at present, they consume a large majority of the world’s natural resources.<sup>1</sup> While the Northern countries are the largest producers and consumers of natural resources, less efficient methods and technologies and fewer effective controls in developing countries mean environmental degradation is relatively more severe in those countries.

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<sup>1</sup> The following statistics serve to illustrate this point. In 1991, the North consumed 86 percent of the world’s share of aluminium, 86 percent of copper and 80 percent of iron and steel. Extraction, refining, dispersive use, and the disposal of metals and industrial minerals may cause significant local environmental problems. Mining can degrade land and create quarries and leaching from tailings or abandoned mines and the disposal of chemicals used in refining are significant sources of water pollution in mining regions. In the same year, the North consumed 47 percent of the world’s share of cotton and wood fabrics. Synthetics which would drastically alter these figures are excluded. The USSR and China are also excluded due to non-availability of information. Cotton is the cause of a number of local environmental problems, most of which stem from extremely heavy use of pesticides. Contamination by pesticides and herbicides is a problem in the soil, water, and food chain of many cotton growing countries, and their overuse can devastate local ecosystems. In 1991, the North consumed 48 percent of the world’s share of cereals, 72 percent of milk (cow, buffalo and sheep) and 64 percent of meat (beef, veal, pork, mutton and lamb). There are a wide range of environmental problems associated with raising livestock. Overgrazing contributes to soil degradation and devegetation; in arid lands, overgrazing can lead to desertification. See Porter G & Welsh Brown J *Global Environmental Politics* (1996) 113.

### III. PACKAGING

Packaging today is the epitome of the modern consumer society. Growth in the use of packaging has come about from the increased consumption of goods as living standards have risen over the last few decade.<sup>2</sup>

The Oxford Dictionary defines “packaging” as “[a]ny manufactured product or any material specifically designed for the containment, protection, transport or marketing of goods or produce.” In other words, it is the products used to contain, convey, and present goods. Packaging is made from a variety of materials, including plastic, metal, glass, and paper. The purpose of packaging is threefold: packaging contains goods; packaging eases distribution; and it is a key marketing tool.

### IV. UNCED & AGENDA 21

Irrefutable evidence has shown that there is an intricate interdependence of both the world’s economy and ecology. It is now understood that the issues of poverty, population growth, industrial development, depletion of natural resources and the destruction of the environment are all very closely interrelated. Seemingly local problems are now known to have global effects.<sup>3</sup>

The seeds of the global reaction to these problems were planted over a span of many years. In 1972, the United Nations convened the Conference on the Human Environment in Stockholm. This was the first global meeting to focus on the unfolding environmental crisis. In 1987, the United Nations World Commission on Environment and Development linked the issue of environmental protection to the concept of global economic growth and development. The Commission also thrust the concept of “sustainable development” into the mainstream of world debate. By 1989, the urgency of the problems of global economic growth and development led the General Assembly of the United Nations to call for an unprecedented meeting - a meeting of all the nations of the world: The United Nations Conference on Environment and Development (“UNCED”).<sup>4</sup>

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<sup>2</sup> Ministry for the Environment, *Packaging in the New Zealand Environment: Issues and Options* (1987) 6.

<sup>3</sup> See Meadows, D H, Meadows, D L & Randers, J *Beyond the Limits* (1992).

<sup>4</sup> The United Nations Conference on Environment and Development was held in Rio de Janeiro, Brazil during June of 1992 and was attended by 116 Heads of State or Government, 172 States, 8000 delegates, 9000 members of the press and 3000 accredited representatives of non-governmental organisations. See Robinson, N A (ed) *Agenda 21 and the UNCED Proceedings* (1993) xiii.

The prelude to UNCED required a global effort. In four pre-conference sessions, the Preparatory Committee<sup>5</sup> coordinated a global approach to confronting the problems of the earth.<sup>6</sup> It was during these sessions that world consumption patterns were first debated at the international level. The pre-conference sessions culminated in the formulation of a document that evolved to become the central agreement of UNCED: Agenda 21.<sup>7</sup> It is important to note that Agenda 21 is not a legally binding text. However, it is an example of a text which has moral, if not legal force. The document *should* serve to underpin both national actions and subsequent, possibly more stringent, international agreements in specific areas.<sup>8</sup> Agenda 21 has been adopted by nations representing over 98 percent of the Earth's population.<sup>9</sup>

Chapter 4 of Agenda 21 ("Changing Consumption Patterns") addresses the need to change unsustainable patterns of production and consumption that lead to environmental degradation, aggravation of poverty and imbalances in the development of countries. The chapter has two main aims: to focus on unsustainable patterns of production and consumption, and to develop national policies and strategies to encourage changes in unsustainable consumption patterns. Of relevance to this paper is clause 4.19 "Minimising the generation of wastes." This states:

At the same time [as encouraging greater efficiency in the use of energy and resources], society needs to develop effective ways of dealing with the problem of disposing of mounting levels of waste products and materials. Governments, together with industry, households and the public, should make a concerted effort to reduce the generation of wastes and waste products by:

- a) Encouraging recycling in industrial processes and at the consumed level;
- b) Reducing wasteful packaging of products; ...

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<sup>5</sup> The Preparatory Committee consisted of all the member states of the United Nations as well as non-member states such as Switzerland.

<sup>6</sup> Many countries gave input into the pre-conference sessions by submitting national reports to the Preparatory Committee. New Zealand's National Report entitled *United Nations Conference on Environment and Development: Forging the Links* was published by the Ministry for the Environment in December 1991. In the section detailing waste management, the Ministry reports at 69: "Certain elements of the domestic waste stream are growing disproportionately. Most notable is packaging, which currently accounts for about 40% of the volume."

<sup>7</sup> Also adopted at the conference was the Rio Declaration on Environment and Development and the Statement of Principles on Forests. See Johnson, S P *The Earth Summit: The United Nations Conference on Environment and Development (UNCED)* (1993) 4.

<sup>8</sup> Sands, P (ed) *Greening International Law* (1994) 1-20.

<sup>9</sup> Sitarz, D (ed) *Agenda 21: The Earth Summit Strategy to Save our Planet* (1993) 1.

Closely related to Chapter 4 is Chapter 21 "Environmentally Sound Management of Solid Wastes and Sewerage Related Issues." Solid waste as defined in this chapter includes packaging. The action required by this chapter is that:

21.9. Governments, according to their capacities and available resources and with the cooperation of the United Nations and other relevant organisations, as appropriate, should:

- a) By the year 2000, ensure sufficient national, regional and international capacity to access, process and monitor waste trend information and implement waste minimisation policies;
- b) By the year 2000 have in place in all industrialised countries programmes to stabilise or reduce, if practicable, production of wastes destined for final disposal, including per capita wastes (where the concept applies), at the level prevailing at that date.

In order to co-ordinate and report on the implementation of Agenda 21 world-wide, the Commission on Sustainable Development ("CSD") was established in February 1993.<sup>10</sup> The CSD consists of 53 member countries, elected equitably by geographic distribution from the members of the United Nations. In the four (annual) CSD sessions to date<sup>11</sup> the principles regarding changing consumption patterns have been reaffirmed.<sup>12</sup> Numerous post Agenda 21 conferences focussing solely on changing

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<sup>10</sup> The Ministry for the Environment intends to report regularly to the CSD. See *Ministry for the Environment Environment 2010 Strategy: A Statement of the Government's Strategy on the Environment* (1995) 61; and *Environmental Policy and Law 23/5* [1993].

<sup>11</sup> See *Environmental Policy and Law 23/5* [1993] for report on first session; *Environmental Policy and Law 24/5* [1994] for report on second session; *Environmental Policy and Law 25/4/5* [1995] for report on third session; and United Nations Department for Policy Co-ordination and Sustainable Development (online) for report on fourth session.

<sup>12</sup> In the fourth and most recent session, the CSD reaffirmed that the major cause of degradation of the global environment is unsustainable consumption and production, particularly in industrialised countries. To help design optimal mixes of instruments for achieving more sustainable patterns, the CSD recommended the adoption of environmental management systems such as International Organisation for Standardisation Series, ISO 14000. The New Zealand packaging industry has adopted ISO 14000 as a form of environmental management. See United Nations Department for Policy Co-ordination and Sustainable Development (online); and *infra* section VI (5) of this paper for discussion on this point.

consumption patterns have also been held.<sup>13</sup> Similarly, these conferences re-emphasised the principles of Agenda 21. Of note is a comment made by the Chairman of the 1995 Conference:

Sustainable production and consumption will involve long term structural change to our economies and our lifestyles. *Governments must take responsibility for putting the necessary framework in place.*<sup>14</sup>

## V. THE NEW ZEALAND RESPONSE

The first documented Government response to packaging was a 1975 report regarding reuse and recycling of beverage containers.<sup>15</sup> The next significant document came in November 1987, when the Minister for the Environment published a discussion paper entitled *Packaging in the New Zealand Environment: Issues and Options*. The main objective of this initiative was to investigate the environmental and social impacts of packaging.

### *1. Packaging Industry Advisory Council*

The packaging industry in New Zealand has been divided because different merchants have different needs according to the type of material used. Other limiting factors have been the absence of good quality data and the cost of sourcing materials and freighting them for recycling.<sup>16</sup> To alleviate

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<sup>13</sup> The Soria Moria Symposium: Sustainable Consumption and Production, Oslo, January 1994; OECD Experts Seminar on Sustainable Consumption and Production Patterns, Massachusetts Institute of Technology, December 1994; Oslo Ministerial Roundtable Conference on Sustainable Production and Consumption Patterns, February 1995; Experts Meeting on Changing Production and Consumption Patterns: The Role of Governments and the Business Community, Brazil, February 1996; and the International Conference on Sustainable Industrial Development, Amsterdam, February 1996. New Zealand did not participate in any of these conferences but did receive the report of the Oslo Roundtable: Rob Ogilvie (Ministry for the Environment) Personal Communication, 24 September 1996. Conferences but did receive the report of the Oslo Roundtable: Rob Ogilvie (Ministry for the Environment) Personal Communication 24 September 1996.

<sup>14</sup> Thorbojn Bernsten, Norwegian Minister of the Environment, at the Oslo Ministerial Roundtable in February 1995; emphasis added.

<sup>15</sup> See Department of Trade & Industry, Commission for the Environment *Beverage Containers - Possibility of reuse and recycling*, Wellington (1975).

<sup>16</sup> See Anon, "Special Feature: Packaging" August 1993 *Recycle Today* 20, 27; and Brett Kelly, "Green thinking takes deep root in the mind of the consumer" 3 October 1992 *NBR* 31, 31.

these problems, the packaging industry united on the environmental issue in August 1992. The result was the Packaging Industry Advisory Council ("PIAC") which includes both manufacturers and major users of packaging.

### 2. *The Waste Analysis Protocol*

In November 1992, the Ministry for the Environment released a Waste Analysis Protocol to assist waste managers (particularly in local government) in assessing their classification of waste. The project was funded jointly by the Ministry for the Environment and the Christchurch City Council.

The Waste Analysis Protocol was developed for three key reasons. Firstly there was the need for reliable data on which to base national waste strategies. Second, there was a need for guidelines as to which regional authorities could monitor waste under the Resource Management Act 1991. Thirdly, and perhaps most importantly, increasing attention was being focused on waste management by individuals, communities and media. The Waste Analysis Protocol focuses on measuring waste in landfills, households and hazardous waste created by businesses.<sup>17</sup> It continues to play an important part in the waste management arena by providing a platform of reliable and substantive data upon which decisions can be based.

### 3. *The Current Government Waste Management Policy*

In 1992, the Government adopted its current Waste Management Policy. The policy seeks to ensure as far as practicable that waste generators meet the costs of the waste they produce. It also encourages the implementation of the internationally recognised hierarchy of reduction, reuse, recycling, recovery and residual management by all involved in waste generation and management.<sup>18</sup>

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<sup>17</sup> Blake, E (Ministry for the Environment) Personal Communication 13 September 1996.

<sup>18</sup> See Ministry for the Environment, *supra* note 10 at 7; and Packaging Environmental Advisory Group (PEAG), *Minimising Waste: A National Strategy for Minimising the Volume of Packaging Waste in New Zealand* (1996) 14.

## VI. THE NEW ZEALAND PACKAGING ENVIRONMENTAL ADVISORY GROUP

In 1994, the Minister for the Environment instructed PIAC to create a report detailing initiatives to minimise packaging waste. The report was to complement the reservoir of information gathered under the Waste Analysis Protocol.<sup>19</sup> In response, PIAC assembled a working group: The Packaging Environmental Advisory Group (“PEAG”). The group contained representatives from central and local government, industry and environmental and consumer groups. In June 1996, PEAG released its report *A Strategy to Minimise Packaging Waste*. The key findings of this report are presented below.

### 1. *Composition of landfills*

In New Zealand, 2.7 million tonnes per year are estimated to be landfilled in legitimate facilities.<sup>20</sup> This volume equates to 790 kg of waste per person per year in New Zealand.<sup>21</sup> Landfill waste, is however, only estimated to be about 30 percent of a country’s total waste stream.<sup>22</sup>

### 2. *The Magnitude of Packaging in Landfill*

The amount of packaging cannot be simply calculated by summing the volumes of glass, plastic, paper and metal because non-packaging sources constitute a significant proportion of these figures. In order to estimate the weights of packaging, PEAG used information on packaging production and imports and exports of packaging to produce an overall balance. PEAG concluded that packaging waste constitutes 11.8 percent of total landfill waste.<sup>23</sup> The calculation assumed that packaging not collected was landfilled.

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<sup>19</sup> “PIAC was surprised at how little information was available on the composition of waste streams. [E]xtensive data collection took place ... and ... relied largely on landfill data gathered using the Waste Analysis Protocol” See PEAG, *supra* note 18 at 6.

<sup>20</sup> The 2.7 million tonnes is made up of: 39 percent organic material, 13 percent construction materials, three percent potentially hazardous materials, seven percent plastic, 20 percent paper, three percent glass, six percent metal, and nine percent miscellaneous.

<sup>21</sup> Each person in New Zealand produces an estimated 2.5 kg of waste each day. See Auckland Regional Council, Teaching Unit 2, “Waste” (April 1996) 33.

<sup>22</sup> Warburton D, & Webber, J *Municipal Waste and the Contribution of Discarded Packaging* (1995) 18.

<sup>23</sup> PEAG, *supra* note 18 at 24.



### 3. *Imported Packaging*

Information regarding imported packaging was rare before the PEAG report and still remains scarce. The only conclusion drawn by PEAG was that imported packaging was not less than 128,000 tonnes. When considering the overall volume of New Zealand landfill waste, this figure for imports is of little significance. However, as a percentage of packaging in landfills, it is of greater importance. Imported packaging makes up 40 percent of total landfilled packaging.<sup>24</sup> This has considerable ramifications given that some imported materials are not compatible with domestic recovery schemes.

### 4. *The Importance of Recycling and Reduction*

Progress in reducing weights and volumes of waste has proceeded on two basic fronts: reduced use of materials, and recycling. The catalysts for change include environmental pressure from consumers; the realisation by organisations that increased environmental performance can be profitable; and technological advancements making reductions possible. A useful illustration is the process of lightweighting.

Lightweighting refers to the use of lightweight materials in the production process. For example, the plastic wrapping on a loaf of bread has thinned down 40 percent due to technological advancements.<sup>25</sup> Lightweighting and recycling combined have been a positive driving force behind packaging reduction in New Zealand.<sup>26</sup> But in spite of specific reductions made by such technological advancements, it is important not to dismiss the possibility of an increase in total waste due to increased economic activity, population growth and changes in consumption patterns.

### 5. *Code of Practice*

PEAG was responsible for evaluating a number of different management options. Of the 11 surveyed, two were highly recommended: a Code of Practice, and User Pays<sup>27</sup> for waste collection and disposal.<sup>28</sup>

A Code of Practise (CoP) for the packaging industry was launched on 30 June 1996.<sup>29</sup> Eighty organisations have joined the accord between the

<sup>24</sup> Ibid, 26.

<sup>25</sup> Brett Kelly, *supra* note 16 at 31.

<sup>26</sup> In total, 233,610 tonnes of packaging waste were avoided in 1994 (compared with 1985 product use) due largely to these factors. See PEAG, *supra* note 18 at 29.

<sup>27</sup> See *infra* section VI (6) of this article.

<sup>28</sup> The other management options (and PEAG's comments) were: local authority collection and recycling schemes (Advocated ("A")), internalisation of costs (Advocated within parameters), standardisation of packaging (A), positive labelling (A), ecotaxes (not advocated ("NA")), minimum recycled material content (NA), deposit legislation (NA), ban on depositing specific packaging items in landfills (NA), and, bans on types of packaging materials (NA).

<sup>29</sup> Webber, J (Packaging Industry Advisory Council) Personal Communication, 5 July 1996.

packaging industry and central government. These organisations are currently formulating their policy with regard to the CoP. Adhering to the accord is a prerequisite to signing the CoP. Of the 80 accord members, 40 have signed the CoP. Approximately three organisations are joining the accord per week.<sup>30</sup>

The CoP is an environmental management tool designed to improve the environmental performance of companies. It is a consultative approach which obtains commitments from signatories to accept ownership of the CoP, to operate with transparency and provide for self audit and reviews. Such a mechanism is termed a "best endeavour" approach because its ultimate success lies with the independent signatories: it is up to them to follow it. As part of the CoP, PEAG recommended three additional factors. The first is an independent complaints procedure. The second is a commitment to positive labelling meeting ISO guidelines and the third is the adoption of the ISO 14000 series of environmental management standards.<sup>31</sup>

The main strength of a CoP (according to PEAG) is its flexibility in allowing organisations to achieve agreed waste management practices. It provides, in effect, a covenant between signatories on a voluntary, non-confrontational basis which can lead to successful results as opposed to reluctance when outside constraints are imposed. The formal complaints procedure complements the CoP, allowing open and democratic dispute resolution. This should enhance public confidence in the CoP and provide successful outcomes if and when disputes arise.<sup>32</sup>

The main problem with such a management technique is lack of compliance. There are no sanctions in place for those "subscribers" who do not comply with the terms of the CoP. The lack of a simple enforcement method ultimately undermines the credibility of the program because the creators of the problem are the masters of their own destiny. The scheme could also risk being overrun by superficially green organisations, using the CoP as an environmental marketing ploy. The success of the CoP ultimately depends on the degree of market adoption and the policing of the offenders.

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<sup>30</sup> Webber, J (Packaging Industry Advisory Council) Personal Communication, 17 September 1996.

<sup>31</sup> The International Organisation for Standardisation (ISO) is the accepted world body for the establishment of standards. Series 14000 is applicable to environmental issues including environmental management systems and ecolabelling. The adoption of the ISO 14000 series is consistent with the direction of the fourth CSD Conference. See *supra* note 12.

<sup>32</sup> PEAG, *supra* note 18 at 10.

## 6. *User Pays*

In accordance with New Zealand's 1992 Waste Policy, PEAG recommends that waste generators should meet the costs of the waste they produce. This is expected to make users aware of the true costs of their actions. Further, it has the potential to have impact on both consumption and production as consumers are also waste generators. PEAG suggests that: importers should bear the cost of disposal of packaging no longer required for local transport or sale; a producer should bear the costs of disposal of packaging for raw materials brought to the place of manufacture; a wholesaler should bear the cost of disposal of packaging no longer required for bulk transport; a retailer should bear the cost of disposal of packaging no longer required for product transport; and that a consumer should bear the cost of disposal of packaging which was no longer required for product containment purposes.<sup>33</sup>

PEAG supports user pays on the grounds of equity. Although beneficial in the sense of targeting waste generators, such a scheme may be regressive for certain levels of consumption. It is conceded that people with higher disposable income generally purchase more products, however, there is a certain base amount of waste that all individuals generate. The user pays process could impose onerous financial burdens on those with minimal disposable income.

The degree to which user pays will impact on packaging is not quantified. PEAG simply states that user pays "transfers the costs from taxpayer/ratepayer to the user of the service."<sup>34</sup> The rate at which this cost is transferred is another issue, involving education and gradual phasing out of a societal norm, namely, regular rubbish collection.

## 7. *The Shortcomings*

PEAG is an industry based group and accordingly provided a set of recommendations and findings with an industrial flavour. As this article has illustrated, the packaging debate is two sided. The responsibility for excess waste and packaging also rests with consumers. PEAG recognises this in its report by emphasising the need to develop "educational material for schools and information for consumers which will promote a consistent message."<sup>35</sup>

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<sup>33</sup> Ibid, 41.

<sup>34</sup> Idem.

<sup>35</sup> Ibid, 60.

In Hamilton, information pertaining to recycling for households already exists.<sup>36</sup> This is distributed to households annually. Notwithstanding these efforts, there would still seem to be definite scope for local and central government to encourage recycling further.<sup>37</sup> One possible way to increase recycling could be to introduce an incentive system. For example, one cent could be paid per aluminium can.

## VII. CONCLUSION

There are three important players fundamentally involved in the packaging debate: industry, government and households. The packaging industry is taking positive steps to reduce the amount of packaging waste it produces. The establishment of PIAC and the 1996 CoP and accord with central government is direct evidence of this. Recycling, reducing the weight of packaging and user pays schemes, have been highlighted as other key strategies in reducing packaging waste levels even further. This is in accordance with clause 4.19 of Agenda 21.

The government has also acted positively in a number of ways. The former Minister for the Environment directed PIAC to formulate an initiative to reduce packaging waste. The result was PEAG and the subsequent CoP. This is consistent with clause 21.9(a) of Agenda 21. Similarly, New Zealand's strategy to access, process and monitor waste trend information

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<sup>36</sup> The chart details recycling locations for oils, organic matter, clothing, tin cans, lead acid batteries, aluminium cans, scrap metal, cardboard, paper, glass and plastic. It also gives a phone line for more information and advice on recycling. At present there is kerbside recycling of paper and glass in Hamilton.

<sup>37</sup> Various arms of central government already encourage government "purchasers" to recycle and purchase "environmentally friendly" products. The initial vehicle for this move was the March 1994 Ministry of Commerce publication *Government Purchasing in New Zealand: Policy Guide for Purchasers*. A subsequent publication by the Ministry for the Environment entitled *Going Green: Your Easy Guide to an Environmentally Friendly Office* endorses this same policy. This booklet is aimed at the private sector as well. In April 1996, the Auckland Regional Council published a booklet entitled "Buy it Back: The Buy Recycled Resource Guide for Business". This guide (endorsed by Franklin District Council, Manukau City Council, Waikato Regional Council, North Shore City Council, Papakura City Council, Rodney District Council and Waitakere City Council) encourages businesses to complete the recycling loop by buying back recycled products. No such booklet exists for households. This appears to be the next phase of recycling education required.

(Waste Analysis Protocol) is consistent with clause 21.9(a). New Zealand's other national strategy, the Waste Management Policy, accords with clause 21.9(b) of Agenda 21.

Opportunities for householders to reduce levels of packaging by recycling are evident in a number of cities. However, at present, the ease with which waste can be disposed of through the general collection system provides little incentive to separate out paper, glass or aluminium for recycling. The consequence is that a large amount of packaging is landfilled. A financial reward system may make recycling more attractive to individuals.

The efforts of the packaging industry, government and recyclers are not sufficient in isolation. Consumption and packaging are two sides of the same coin and thus pose interrelated problems. An increase in the use of packaging is the inevitable result of increased resource consumption. It is difficult to stem the levels of packaging waste without concurrently addressing resource consumption patterns. Chapter 4 of Agenda 21 emphasises this point but the New Zealand response is lacking in this regard. Efforts to reduce the levels of packaging brought on by consumption are being applied solely to the packaging side of the coin. Environmental management must adequately address consumption patterns to facilitate increased reduction in packaging waste.