CHAPTER 6

Waste not, want not

This chapter looks at the theme of waste in New Zealand to examine how education for sustainability could approach this issue. It emphasises a need for education to peel back the layers of waste problems to address their underlying causes, and not just to deal with their symptoms. It raises questions about consumption and the growth of a consumer society and makes some connections with quality of life concerns. Tensions and dilemmas that need to be addressed are also acknowledged. The topic of waste was chosen because it is currently a topical issue in New Zealand. It also provides a useful window into the world of many other sustainability issues.

Please note: This chapter provides only a brief introduction on waste in New Zealand, with a focus on solid waste. *The New Zealand Waste Strategy*[1] also provides useful background information on this topic.

6.1 The current situation

Thinking about waste

As noted in section 2.3, New Zealand's waste problem is large and getting worse.[2] Waste volumes have been growing much faster than the growth in population. An enormous amount of waste is now going into landfills, but what many people do not realise is that the vast majority of waste is usually produced *before* people buy things. For example, it takes three tonnes of materials to make a gold ring that weighs only ten grams.[3] In addition, more materials and large amounts of energy are often required to recycle waste into reusable forms. The basic image of the 'waste hierarchy' is often used to communicate this message (see figure 6.1). The greatest gains in waste management need to be made by thinking about ways to reduce waste from the outset. Reusing materials and recycling them is helpful, but it is important to note that these offer less potential for managing the use of materials and energy in society.[4]

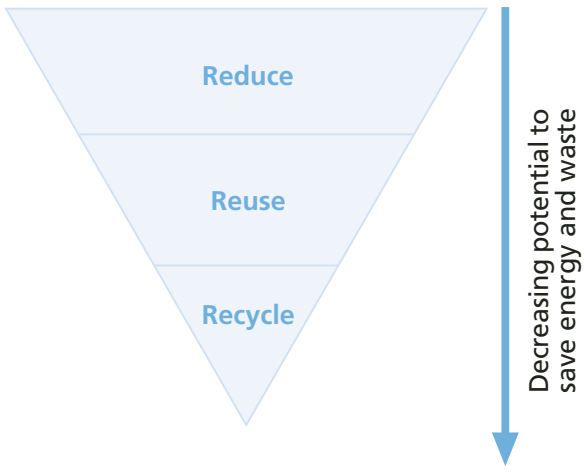

Figure 6.1: The basic waste hierarchy

Waste is basically a by-product of production and consumption patterns. 'Production' is concerned with how goods and services are made by people from materials and energy in their environment. 'Consumption' relates to how people use those goods and services to provide them with things they need and want. Production and consumption are like two sides of the same coin. Production often shapes consumption (e.g. businesses develop products and encourage people to buy them) and vice versa (e.g. people need and want things that other people and organisations produce).

The current focus

There is a huge range of activities taking place in New Zealand to lower the amount of waste going into landfills. Community groups have been advocating for 'zero waste' and have helped to drive many of these initiatives. Local government is very involved in waste recovery and recycling initiatives, strongly motivated by the desire to save on landfill costs by diverting rubbish from the waste stream. Students in schools are often encouraged to compost and recycle waste as part of their environmental education. Many businesses are reducing the amount of resources they use, with a growing awareness about the ways they can save money. Central government has also taken on a stronger leadership role in this area by releasing the *New Zealand Waste Strategy* in 2002, developed in partnership with local government.

These initiatives are an important and integral part of waste management. They are also useful for getting people to think about waste in society. Yet the current focus is mostly based on the *bottom tip* of the waste hierarchy. The New Zealand Waste strategy summarises the situation:

> **We are making good progress in managing waste disposal but little in reducing waste. Forging a path towards sustainability means finding ways to break the link between development and environmental degradation. Reducing environmental stress means not only reducing the waste we generate but also changing the way we think about our use of resources.**[5]

The government has identified a need to reduce waste as a cornerstone of New Zealand's commitment to sustainable development.[6]

Most of the current focus is also on getting individual people and organisations to take responsibility for their own waste. For example, a recent campaign urged people to reduce their rubbish.[7] As discussed in chapter 3, it is important to focus on individual changes in behaviour to promote education for sustainability. Yet it is also vital for education to empower people and organisations to help change the context (the systems) in which they operate. The danger of focusing on individuals only is that the outcomes of education efforts can often become very vulnerable. Efforts to manage waste often

become dependent on the goodwill, energy and enthusiasm of individuals.

Education for sustainability therefore needs to delve below the surface to address the underlying causes of problems like waste. Educators need to keep things in perspective: where is all the waste in New Zealand coming from? Are people being socialised to recycle and dispose of their waste without helping them to work out ways to prevent it in the first place? Given the current gaps, the rest of this chapter looks at the issue of waste reduction. As the old saying goes, prevention is better than cure.

6.2 Getting to the roots of waste

> **Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development.[8] -World Summit on Sustainable Development**

As noted above, waste is basically a by-product of production and consumption. People and organisations can often be motivated to curb the amount of waste they create during production. This is because there are usually incentives for them to save money by using materials and energy wisely. Consumption issues are often more difficult to address. Despite this, there is widespread agreement in the international community about the urgent need to tackle issues related to consumption.

... sustainable development demands a strategic and long-term approach which attempts to tackle and reform the underlying causes of environmental damage. Spurred by success in reducing the impacts of production processes, there is a greater willingness to begin to look at how the more difficult question of consumption can be addressed. This is evident in the willingness to begin to re-examine some formerly 'taboo' consumption patterns and lifestyles.[9]

– Organisation for Economic Cooperation and Development

The main focus for the rest of this chapter is on consumption. One of the ways that education for sustainability could look at waste in society is to address the fact that New Zealanders now live in a consumer society. This has far-reaching implications for the ways people learn, what they value, and how they live their lives.

Consumption and the rise of a consumer society

The term 'consume' used to mean to use something, or to waste, exhaust, or destroy it. People have always used materials and energy from their environment to support and sustain themselves. 'Consumption' will therefore remain an important part of human societies. But to say that New Zealand has increasingly become a *consumer society* means something fundamentally different.[10] People in consumer societies do not just use materials and energy (embodied in products) to sustain themselves – they often consume the symbolic meanings associated with products (see section 5.4).[11] A consumer society is one in which high levels of material consumption are closely linked to the identities, aspirations and leisure activities for more and more of the population.

The history of private enterprises in New Zealand has long been characterised by intensive efforts to stimulate the public into consuming more and more.[12] Government policies have supported these efforts because of the perceived benefits for economic development and employment. If current trends in household consumption and debt are anything to go by, the development of a consumer society in New Zealand may even be accelerating. The volume of goods and services consumed by New Zealand households has been increasing in all areas since 1998, with per capita consumption rising steadily[13] (see also section 6.3).

Consumer societies tend to be very wasteful societies. As the New Zealand waste strategy states, "the amount of waste we produce is directly linked to how many goods and services we consume – the greater our wealth, the more we waste".[14] Think about this statement from a market research company in New Zealand:

> **Consumers are spending less time cooking and are demanding, and being offered, a greater selection of frozen meals. Added to this is the fact that 84% of households have a microwave. Microwaves were introduced into New Zealand about 15 years ago and in 3-5 years from now we will see the emergence of a new breed of homemakers who have grown up with no concept of food preparation without a microwave.[15]**

As technologies have changed, and shifts in lifestyles have occurred, a throw-away society has been developing in New Zealand. Although microwaves use less energy than conventional ovens, a frozen dinner that is cooked and eaten in minutes leaves a plastic container as a legacy that will persist for hundreds of years.[16]

It is important to realise that the development of consumer societies has been a relatively recent phenomenon. The origins of many consumer societies can be traced back to events that were occurring in the United States at the turn of the twentieth century.[17] Brand names started to become household names, packaged and processed foods made their widespread debut and the automobile began to assume a pivotal place in American culture. As Durning suggests:

> **Economists and business executives, concerned that the output of mass production might go unsold when people's natural desires for food, clothing, and shelter were satisfied, began pushing mass consumption as the key to continued economic growth.[18]**

People who were once known as customers gradually began to morph into consumers. Before this period, people tended to look after material goods, which were usually designed to be durable. With the rise of the consumer society, 'disposability' became the new trend, and many products were actually designed to become obsolete very quickly. Marketers encouraged people to throw things away, as "the selling points of modern products – styling, technological superiority, convenience and cleanliness – all amounted to arguments for disposing of things rather than seeking ways to reuse them".[19] The continual growth of markets for new products partly came to depend on the continuous disposal of old things.[20]

To show how far and fast things have changed, consider this: two weeks after the terrorist attacks on 11 September 2001, the leaders of the United States and Britain urged people to go out shopping to prevent the economy going into recession.[21] Shopping had become a patriotic duty. Half a century earlier these governments had expressed a completely different sentiment. During World War Two people were encouraged to consume less and 'tighten their belts'.[22] Shopping to express one's loyalty as a citizen was not at the forefront of anyone's mind.[23]

Is it not a cause for concern when world leaders encourage people to use more and more materials and energy to try and achieve security, instead of using less? The dominant culture in New Zealand is obviously different to the cultures of the United States and Britain. But consumerism (when consumption becomes an ideology) is now central to the way of life in all these countries. New Zealand is also embedded in the same international trading system that has been structured around consumption. Retail sales are regularly used as a measure of the 'health' of the local economy. Many New Zealanders, gazing through their television screens at American programmes each night, may also wish to simulate the idealised pictures of an American lifestyle for themselves.

Learning in a consumer society

Consumer societies do not just develop overnight. People *learn* to be consumers and to consume in different ways. Two major developments last century have been very influential in accelerating the process of shaping people as consumers: the introduction of commercial television in the 1950s and the advent of modern marketing techniques. Advertising now fuels the desire for the symbolic meanings that people consume (see section 5.4). It is continuously used to persuade people to buy more and more.

Well before children can read, they can recognise familiar packages in stores and characters on products such as clothing and toys.[25] Consumerism creeps into the consciousness at a very early age. Twenty-five years of research on consumer socialisation in the United States has found that:

> **Desires for material goods become more nuanced as children progress through elementary [primary] school, with material goods becoming aligned with social status, happiness and personal fulfilment. Fuelled by a greater understanding of the social significance of goods, consumption symbolism, and interpersonal relationships, materialistic values crystallise by the time children reach fifth or six grade [11 or 12 years old].**[26]

Although the vast majority of children do not understand the persuasive intent of advertising before the age of seven or eight years,[27] they are bombarded with marketing messages on a daily basis. These messages continue throughout their life. For example, think about this advertisement from a recent New Zealand magazine under the heading 'A formula for success' (all names have been removed):

> **Making a great cold drink is a challenge. Making it cool is even harder. But when an advertiser promoted their new product on our internet site, the kids really clicked … First, cool web banners attracted kids to the promotion where they invited the product to become their buddy and [the kids] entered their details into the product's database … Word soon spread, and after just two weeks the response was enormous: 812% higher than forecast … To quote the Brand Manager, "The Instant Messenger allowed a high level of intimacy leading to a greater emotional connection with the brand".**[28]

Is this targeting of young people really a formula for success in society? This kind of advertising highlights how businesses do not just 'discover' consumer tastes and design their products to suit (see section 5.4). Advertising is often

used to create wants, which often shift into becoming perceived needs. To illustrate how advertising can sell almost anything, it is useful to reflect on this example: an Auckland graphic designer developed a billboard campaign in 1999. The product was literally nothing. She used 27 billboards (under the auspices of an art project) that included a picture of a woman's face and the caption "Nothing™: what you've been looking for". Over a third of Aucklanders recalled viewing the billboards. Some people even rang the owners of the billboards to ask where they could buy Nothing™ – consumers who wanted a brand even though they had no idea of the product.[29]

The use of modern marketing techniques has been assisted through the development of media technologies (see section 5.3). It should therefore come as no surprise that high levels of materialism are usually reported for adolescents who watch more television.[30] There are many other influences that shape the ways people think, feel and act as consumers. Families and peers can also be influential in altering consumer beliefs early in life.[31] Yet modern forms of marketing, spread through the media, are fundamental to the ongoing maintenance of consumer societies.

Self-identity in a consumer society

> **A mark of how civilised a population is: what they start worrying about when their ordinary needs are met. An advanced civilisation might start being concerned about spiritual or philosophical questions. We go shopping.[32]**

What happens to a person's identity in a consumer society? As chapter 3 highlighted, education for sustainability aims to extend boundaries of concerns from beyond an individual's sense of self (their way of seeing and interacting with the rest of the world). It encourages people to connect with, and care for, other people and the environment they live in. Advertisers, who aim to encourage individual consumption, often target people's sense of identity to sell symbolic messages. In the words of one marketing lecturer in New Zealand, "People are fickle. Self is so malleable".[33] They also aim to build emotional connections with people, products and brands (see the example above). As such, marketing and advertising helps to foster a very self-centred view of the world. This does not mean that people are more self-aware. It means that their sense of identity becomes more closely tied to their role as consumers. Identity is displayed *through* symbolic displays of consumption. If people are constantly being encouraged to focus on themselves as individual consumers, this makes it much more difficult to extend their boundaries of concern to care for other people and the wider world around them. It has even been suggested that a certain degree of dissatisfaction

While governments exhort their citizens to protect the environment through the slogan ‘reduce, reuse and recycle’, a huge advertising industry persuades people to ‘increase, discard and dump’.[24]

– Clive Hamilton

needs to be maintained to sustain a consumer society:

> **... workers who are earning a lot of money because they work long hours provide the market for the very goods they are producing, and never mind if they do not really need the goods in question. The consumption becomes the reward for the hard work and the long hours. Nevertheless, it cannot be a very satisfying reward: the conditions of dissatisfaction must be maintained, or markets for useless products would disappear under a gale of common sense. We become addicted to consumption, which provides no lasting satisfaction.[34]**

Historically, many religions have also shaped (and often repressed) people's sense of identity by positioning them in a wider social context (see section 5.2). All established religions contain strong messages against greed and excessive materialism.[35] In contrast, consumer societies embrace materialism to keep the cogs of consumption turning. Consider this quote from an American retailing analyst in the 1950s:

> **Our enormously productive economy ... demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek spiritual satisfaction, our ego satisfaction, in consumption ... We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing rate.[36]**

While religions have declined in influence in New Zealand over the last century, consumerism may have filled a spiritual void for many people – albeit with a completely different sense of purpose. As Hamilton suggests:

> **There is ... an intimate relationship between the creation of self in consumer capitalism and the destruction of the natural world ... Protecting the natural world requires not only far-reaching changes in the way we use the natural environment: it calls for a radical transformation of our selves.[37]**

6.3 Educating for a transformation

People may read this chapter and merely think – so what? Lots of people know about a consumer society in New Zealand. Even among those who care about these issues, the challenges often seem so large that it is all too easy to switch off. But New Zealanders face important choices: do they want to follow the current path of development in their country or direct their energies elsewhere? As the United Nations Development Programme (UNDP) has noted:

> **No major changes have occurred since UNCED [the 1992 Earth Summit] in the unsustainable patterns of consumption and production which are putting the natural life support system at peril. The value systems reflected in these patterns are among the main driving forces which determine the use of natural resources. Although the changes required for converting societies to sustainable consumption and production are not easy to implement, the shift is imperative.[38]**

If people can learn to be consumers, they can also learn to resolve unsustainable practices and develop sustainable ways of living. As chapter 2 highlighted, the size of New Zealanders' ecological footprints are very large, and there is currently a major lack of awareness of sustainability issues in New Zealand. Awareness raising is likely to play an important part in educating people to address problems like waste. For some people, highlighting the environmental consequences of consumption and waste will be enough to get the ball rolling – especially when the environment is closely tied to the national identity of many New Zealanders (see section 2.1). But for most people, communicating messages in an 'environmental' frame is unlikely to be very effective. The environment often slides down people's list of priorities. It is also all too easy to highlight 'doom and gloom' issues surrounding consumption. As one person suggested during research for this report, "a sulky and negative perspective is not the state of mind to be in to face up to environmental pressures".[39] People need to *want* to make changes. It is therefore important to emphasise what people *get*, not what they *give up*. What connections could education for sustainability make between waste, consumption and other concerns in society?

Focusing on quality of life

As highlighted in section 2.2, a useful angle for looking at sustainability issues is to focus on quality of life. What provides people with a sense of well-being? What makes them happy? What sort of a society do people want to live in? What do people *really* want? The UNDP suggests that:

> **Consumption clearly contributes to human development when it enlarges the capabilities of people without adversely affecting the well-being of others, when it is as fair to future generations as to the present ones, when it respects the carrying capacity of the planet and when it encourages the emergence of lively and creative communities.**[40]

They also emphasise the point that increasing levels of consumption and materialism do not necessarily contribute to more well-being. In fact, the opposite is often true. Study after study shows that material wealth, once it gets beyond a certain level, does not create happiness.[41] For example, the proportion of Americans calling themselves happy peaked in 1957 – even though material consumption has more than doubled since that time.[42] Americans have been busy accumulating a lot more 'stuff', producing much more waste in the process, but their perception of affluence has actually fallen. Although there is hardly any research in New Zealand on this topic, at least one

Real Stories

My life was once all about numbers. Salary with six figures. Weeks with one hundred working hours. Home with eight bedrooms, five TVs, and three kids who hardly knew me. Twenty years creating those advertisements that drive you to buy more, spend more, throw away yesterday's purchases to make room for today's new models. Making ads that assure you all is well when that big friendly multinational with the smiling frontman wants to build a health hazard in your backyard. Over time, the bigger the clients, the smaller their consciences, the more uneasy with it all I became.

Then an email arrived from Nepal; a request for design assistance with one man's project. He'd set up a web-based way of redistributing Khatmandu's meagre surpluses to the hill villages. Office workers logged on to give their address and a truck would call to collect their spare schoolbooks, shoes and blankets; simple, and effective. For me, the light went on. This was a better use for the web than the consumer sites I was building. This was a better purpose in life than the life I was leading. I could redirect my advertising skills and experience to good causes, full-time. It led me to thinking that if enough skilled advertising people pledged just a little of their time too, we could create a global network of advertising resources powerful enough to make a difference. So my wife and I set up The Global Bridge to do just that.

Once the decision was made in favour of change, once my family and I were committed to it, the transition from consumer values to sustainable values flowed like a powerful river – overcoming seemingly impossible obstacles. It seemed the more money we had made, the more we owed; we had no capital with which to finance this dream – in fact we were in debt. But we were 100% committed, and that's all it took.

I left my job as Creative Director for a well-known multimedia firm and we sold everything we owned (for around 8% of what we paid for it!), in order to travel to wherever we were needed most, and stay there for as long as we were needed. The day we moved out of our house, we moved onto a seventy-year-old 36-foot wooden sailboat that we had financed to the mast-tops. In the first two years we sailed the full length of New Zealand's east coast, creating educational multimedia for dolphin and albatross projects with DOC and Forest and Bird on the way.

Our sons are home-schooled, we work together as a family, and we live on the smell of an olive-oily rag. And best of all, success is now measured by what we've been able to give away.

Life is good.

Dene and Pamela Waring

study seems to reveal similar findings.[43] All religions, and many researchers in the social sciences, also seem to agree: happiness is more likely to be found in things like relationships with friends and family, meaningful work, and living in a healthy environment.[44]

Educators could therefore address consumption issues by encouraging people to connect with what they really value. For example, do parents want to spend more time at work to buy more stuff for their kids – or would they prefer to spend more time with them as they grow up? As noted in the previous chapter, Americans spend nearly seven times as much time shopping as they do playing with their kids.[45] Do New Zealanders wish to pursue that way of life? In fact, people seldom stop to think about how much time they actually spend working to accumulate and look after large consumer items. For example:

> **The average American is involved with his or her automobile – working in order to buy it, actually driving it, getting it repaired, and so on – for sixteen hundred hours a year. This means when all car mileage in a given year is divided by the time spent supporting the car, the average car owner is travelling at an average speed of five miles per hour.[46]**

And who likes to live in debt? As Watkins suggests, "advertising helps create desires, and – where income is lacking – credit provides the means".[47] Consumer spending by households in New Zealand has increased faster than household incomes since 1988, and people actually began to spend more than they were earning for the first time on record in 1998.[48] Many New Zealanders are now spending beyond their means, and credit card use is among the highest in the world.[49] Although credit can be used wisely, it can also tie people down when they eventually try to pay off their debts. Increasing levels of debt may also run counter to the government's attempts to persuade people to save for their retirement.

While some people consume a lot in New Zealand society, it is also important to acknowledge that many people are excluded from the benefits of consumption. An increase in their material wealth could therefore contribute significantly to their well-being. It is also vital to look at equity issues. Inequalities in consumption, especially when they are accompanied by conspicuous displays of material wealth, often deepen poverty and harm perceptions of well-being.[50] There is also evidence to suggest that the social bonds that connect people (sometimes labelled 'social capital') often break down when there is excessive materialism in society.[51] When these threads begin to loosen, the entire fabric of a society can start to unravel.

These are just some of the ways that education for sustainability could look at quality of life concerns. As section 2.2 highlighted, people also value many other things in life that rely on a sustainable environment – such as the lives of

their children and their children's children if they have them. But even if people wanted to talk about these issues, it remains to be seen how educators could initiate a dialogue on them.

Getting the messages across

If education for sustainability was adequately covered in the formal education system, it could provide people with an open forum to talk about consumption and waste issues. Students could be encouraged to critically reflect on their own values and dominant values in the world around them. Unfortunately, as chapter 4 highlighted, education for sustainability is almost entirely on the fringes of this system.

There is also an enormous potential to use the media to help people learn about sustainability issues. The problem is that the media often thrives on controversy and conflict, especially when it comes to seemingly 'taboo' topics like consumption (see section 5.3). What about marketing? If marketers can sell Nothing', there is definitely a potential to use marketing to sell other messages related to quality of life. As an example, modern marketing uses symbolic associations to shape consumer preferences for goods like sports utility vehicles (SUVs) (see section 5.4). Could it be just as feasible to develop the perception that real 'blokes' should like fuel-efficient cars, or that they should keep fit by using their own feet to get to work? Of course it would be difficult to sell these sorts of messages when so many other advertisements are trying to sell people contradictory messages – but it does make one think. It is also important not to doubt the power of peer pressure. Symbolic meanings can only continue to exist and be influential as long as enough people believe that they are important.

Using social marketing is just one approach that could be used to sell the messages of sustainability. In reality, all social contexts for learning (such as families, peer groups, religions and others discussed in chapter 5, to name a few) could be used to open a dialogue on waste and consumption issues. It is valuable to use a variety of different approaches. The most important thing is that people should feel encouraged to talk openly and reflect upon these issues.

So far, the focus in this section has mostly been on individuals. Changes in society need to come from caring and enthusiastic people. However, as this report often emphasises, it is important not to simply shift all responsibility onto individuals. People need to develop the capacity to change the larger social and economic systems in which they live, or they will always face an uphill battle. Although it is good to be idealistic, it is also important to be realistic about existing tensions and dilemmas. Transformation in society starts from where New Zealand is today.

6.4 Tensions and dilemmas

As discussed above, private enterprises in New Zealand (supported by government policies) have been very influential in encouraging people to consume more and more. New Zealand's existing economic system has therefore become based around maintaining and sustaining high levels of materialistic consumption. It is difficult for people to look beyond this system, especially when there are many people's jobs and livelihoods at stake. There are also many vested interests that will resist changes by insisting that 'there is no alternative'. This section looks at some of the major tensions and dilemmas.

A dilemma for government

Governments aim to maintain a stable system of taxation to fund public services like health and education. To do so, they usually want to increase economic growth. In fact this often becomes an over-riding goal of government policies.[52] Economic growth is commonly measured by gross domestic product (GDP). Economists, business people and politicians often use GDP figures to justify or criticise New Zealand's well-being as a nation. However, as section 2.2 noted, GDP is a very simple measure. It simply adds up the total quantity of goods and services produced in an economy, regardless of whether they come from activities that help or hinder people's well-being, and it does not make any deductions for any harm done. More crime, prisons, road accidents, pollution and landfill costs increase GDP along with new schools, exports and tourism earnings. Even the economists who helped design the system of national accounts, which provided the basis for measuring GDP, were acutely aware of its limitations. As one of them commented, "The welfare of a nation can scarcely be inferred from a measurement of national income".[53] He went on to add that:

> **Distinctions must be kept in mind between quantity and quality of growth, between its costs and returns, and between the short and the long run ... Goals for 'more' growth should specify more growth of what and for what.[54]**

Time and time again, people have emphasised the dangers of putting too much reliance on GDP as a measure of prosperity – especially when alternative indicators exist.[55] A point is usually reached when economic growth, as it is currently defined, ceases to improve quality of life.[56] In fact, economic growth today often relies on generating more waste, through the "trash created by packaging and disposables and the constant technological and stylistic changes that has made 'perfectly good' objects obsolete and created markets for replacements".[57] Nonetheless, because of the dominant mantra that 'growth is good', it is difficult to broaden the debate about alternatives to GDP. Even if government wanted to pursue alternatives, they would need a strong mandate from the public to do so.

A dilemma for businesses

While government aims to increase economic growth, businesses usually try to expand and maximise their profits (especially if they are large corporations that need to meet the expectations of their shareholders). Business people often claim that they play a 'wealth creating' role in society, but it is important to reflect on what they actually 'create' wealth from. Businesses use people as well as materials and energy from the environment to sustain their activities. It is also important to question what is meant by 'wealth'. As businesses grow, they tend to use more materials and energy and produce more waste, even though they may become more efficient in their production techniques. They also encourage people to consume more of what they want to sell. Current business models are therefore very focused on material growth. As one of the people interviewed for this investigation asked, "Where do we go if we're not going to promote growth?"[58]

Many businesses, like government, are therefore likely to resist calls for people to consume less. As Hawken suggests, this raises fundamental questions about the sustainability of many existing business practices:

> **If every company on the planet were to adopt the best environmental practices of the 'leading' companies ... the world would still be moving toward sure degradation and collapse. So if a tiny fraction of the world's most intelligent managers cannot model a sustainable world, then environmentalism as currently practised by business today, laudable as it may be, is only a part of an overall solution. Rather than a management problem, we have a design problem, a flaw that runs through all business.[59]**

Nonetheless, many businesses have been more proactive on sustainable development issues than most governments around the globe (see section 4.7). Businesses can also be designed in many different ways, and growth and consumption *per se* are not the major issues for waste in a consumer society. It depends on *what* people consume, and *what sorts* of economic activities are taking place.

Redesign

> **Increasingly, the paradigm of *progress* is being challenged by that of *transformation*: the conviction that we are still 'on track' to a better future by the conviction that we are now straying ever further off it; the view that economic, social and environmental problems are 'glitches' we can iron out of the system by the view that the problems are systemic and require whole-system change.[60] – Richard Eckersley**

As emphasised in chapter 3, education for sustainability does not just need to challenge current systems – it needs to seek positive solutions. As one of the people interviewed for this investigation commented, "the current paradigm of

living off the earth indefinitely creates irresolvable paradoxes. Education should be teaching about these paradoxes and looking for answers to issues".[61]

To get to the bottom of waste issues, consumption needs to be addressed. But to change what people consume, it would also be necessary to redesign the ways that many things are currently produced. Thinking about that frozen dinner again, it is useful to reflect on who designed the plastic packaging. How did it develop from a mineral under the ground into a disposable wrapper? As noted above, consumption and production are like two sides of the same coin. You cannot treat either of them in isolation.

Much work has already been done in the area of 'sustainable consumption and production'.[62] A common theme is that there needs to be a shift away from selling people more 'stuff'. Instead, there needs to be a much stronger focus on what people *really* need and want. People do not literally 'consume' most products, in the sense that they exhaust them. They merely use them to provide them with things they need and desire. For example, a car provides people with mobility. Often it provides them with a sense of status as well. Yet on congested urban streets, cars often *impede* people's mobility. Too many cars on a limited number of streets begin to slow the flow of people. The conventional solution is to build more roads, at an enormous cost to society. Many cities have therefore been designed around the private automobile, using many materials and producing much waste in the process. People then become more dependent on cars for getting around. But what was most important in the first place? Was it a quick, safe, affordable and comfortable form of mobility or just a status symbol?

There are also many positive examples of successful businesses that are starting to break the connections between consumption, production and waste.[63] However, they often face hurdles in the markets that they are competing within. This is because the economic structures that have developed over time generally encourage more consumption of materials, with little emphasis on preventing waste. This is why there are often calls for economic systems to be redesigned to contribute more to people's quality of life.[64]

Education for sustainability could therefore be used to look at creative ways to meet society's needs and wants in ways that promote a good quality of life. It could look at ways to develop systems that promote less resource use and not merely more, while making sure that materials can also be reused and recycled before being safely integrated back into the environment. In essence, another level could be added to the waste hierarchy (see figure 6.2) to highlight a need

to think about how products, services and systems are designed in the first place.

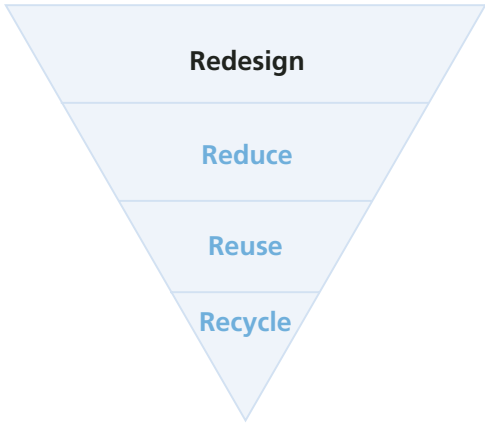

Figure 6.2: Re-thinking about waste

What would this redesign require? It could require people to develop some common understanding and concern for sustainability issues. Business people, economists and policy makers could learn about these matters. Engineers, architects and planners could design systems that produce less waste. Scientists could share their expertise and develop production processes that mimic natural processes. People could become more media literate and learn more about the short history of consumer societies. All people could also be encouraged to be creative, share ideas and think critically about many of the vested interests that hold back changes in society. Any changes would need to be supported by a strong mandate from society. People and organisations could even be empowered to take responsibility for many issues for themselves.

What does this suggest? It highlights that education for sustainability cuts across all areas of established learning and education in society. If sustainability is important, and if it should be embedded in people's education, it would require some rather fundamental shifts in the way education is currently practised in New Zealand. It would also require a lot of learning and cooperation well beyond the formal education system. Sustainability requires people to care about their fellow human beings and the rest of the world they live in. Fortunately, a lot of environmental educators in New Zealand, who often use art and narratives and many different learning techniques, are very good at developing this sense of caring. Unfortunately, even environmental education is still on the fringes of most institutions.

6.5 Summary and key points

> **If a boat isn't too large and doesn't move too fast, its wake won't disturb other boats or ducks in the water. Or erode the shore. Just like boats, people – myself included – will always make waves in the world. When you get right down to it, consumption is inescapable. Any biologist can tell you that life itself is a process of consuming energy and matter and producing waste. Yet consuming too much isn't inevitable.**[65]

This chapter contains much more than a discussion on waste. That is because waste is connected to so many other issues in New Zealand society today. Whether people realise it or not, waste is a symptom of much larger systems. These issues are very complex, so justice can hardly be done to them within the few pages of this report. The most important point is that people should feel free to talk about, and challenge, these issues in society. For example, the consumer society that has developed in New Zealand is based around the creation of ever-expanding wants and perceived needs. What sort of implications does this have for attempts to bring down New Zealand's ecological footprint (see section 2.3) to a size that is sustainable and equitable on a planetary scale?

Waste is not just an environmental issue. It can be looked at through a variety of social, cultural and economic lenses. Like many other issues, education for sustainability needs to encourage people to make these sorts of connections. There are many different ways that education could be used to look at issues like waste and consumption. However it is also important to question the influence of other forces in society that may shape learning in undesirable ways. For example, many advertisers now aim to develop emotional connections between young people, brands and products. It is useful to compare this to the sentiment expressed in the government's *Sustainable development programme of action* that, "How we value and look after our children and young people is an important reflection on the state of our society. It is also a predictor of how we will fare in the future".[66]

Key points from this chapter are that:

- Waste is an enormous issue for New Zealand. The current focus is on recycling and getting individual people and organisations to take responsibility for dealing with their own waste.
- Although many existing initiatives are helpful, it is vital to peel back the layers of problems like waste to address their underlying causes, and not just deal with their symptoms. For example, are people simply being socialised to dispose of their waste without enabling them to work out ways to prevent it in the first place?

- New Zealanders now live in a consumer society. This has far-reaching implications for the ways people learn, what they value, and how they live their lives.
- People in consumer societies do not just use materials and energy to sustain themselves. They often consume symbolic meanings. A consumer society is one in which high levels of material consumption are closely linked to the identities, aspirations and leisure activities for more and more of the population.
- New Zealand's economic system has become based around maintaining and sustaining high levels of materialistic consumption. This creates all sorts of tensions and dilemmas for government and businesses.
- To address these issues, and to bring down the size of New Zealand's ecological footprint, it will be necessary to redesign many of the social and economic systems that currently exist in New Zealand.
- Consumer societies do not just develop overnight. People *learn* to be consumers and to consume in different ways. If people can learn to be consumers, they can also learn to resolve unsustainable practices and to develop more sustainable ways of living that contribute to a good quality of life.
- It is important to open a dialogue, both in the formal education system and beyond, to talk freely about these issues. Many different contexts for learning could be used for this purpose. It will also be necessary to challenge some forces in society that shape learning in undesirable ways.