

Section 6

Future Challenges and Recommendations

This chapter explores issues that will have a significant influence on progressing sustainable development in New Zealand, and makes recommendations to central and local government.

6.1 Introduction

New Zealand could and should be a leader in sustainability. Its small population relative to land area places a lot less pressure on natural systems than many other OECD countries. If New Zealand cannot function in a sustainable way, it leaves little hope that any developed nation can do so. But are we functioning in a sustainable way? If it is measured in terms of ecological footprint, perhaps we are, but by any other measure we are not. Trends show that our energy consumption is rising faster than economic growth (see figure 3.1). Our production of solid and liquid wastes similarly continues to grow on a per capita basis indicating that more resources per capita are needed to deliver the desired qualities of life. Intensification of various land uses is creating environmental impacts which current information indicates is unsustainable. We have an open market system that does not regulate the importation of used, end-of-life goods such as motor vehicle tyres that soon become a waste management problem. The price of such goods does not reflect the costs of their treatment or disposal and the subsequent long-term impacts they have on the environment. Free trade agreements put added pressure on biosecurity systems to manage the risk of imported goods carrying exotic pests that could irreversibly damage New Zealand's environment and economy.

We need to improve awareness about sustainable development among all sectors of society, and identify practical things that organisations, communities and individuals can do to work towards sustainability goals.

6.2 Creating a vision and direction for the future

Sustainable development is not an easy concept to define or communicate, hence the plethora of definitions and interpretations that have evolved over the last fifteen or so years. To make it meaningful and generally acceptable in the New Zealand context, sustainable development has to be supported by a strong vision and clear goals established through effective consultation processes. Sustainable development needs to be relevant to, and demonstrate benefits for, all sectors of New Zealand society as well as the ecosystems that we rely on and value.

At present, meeting society's expectations generally involves making choices and trade-offs, some of which may have potentially harmful and irreversible effects on the environment. To avoid such adverse outcomes, decision makers right across the spectrum from governments and multi-national corporations through to individuals need to be aware that the environment, the economy and society are interlinked and that opportunities in one of those areas may need to be constrained due to potential impacts in another. Equally, there may be opportunities that benefit all three. In any case, sustainability is not achieved by taking a single issue approach to decision making. Understanding sustainability is about having the foresight and capacity to tackle broader and strategic issues, and to address the potentially wide-ranging consequences of the choices that we all have to make.

The Local Government Bill will enable local authorities to consult on and implement long-term plans that address sustainability issues at the local level. However, until the proposed New Zealand Strategy on Sustainable Development is completed, there remains no national vision that focuses on sustainability. Nor is there any obligation on local authorities to ensure that their long-term plans for their communities are consistent with a national strategy on sustainable development. The Growth and Innovation

Framework and various strategies that have been completed or are under development (see table 4.2) all target particular aspects of economic growth, social development or environmental protection in various degrees of isolation. These initiatives need to be coordinated within a sustainable development framework and quickly followed up by a range of actions and targets that address the priority areas for New Zealand.

Monitoring and review systems, and associated sustainability indicators, will enable progress towards sustainable development outcomes to be assessed and, if necessary, revised to meet changing needs. Such monitoring and review systems (and their indicators) should ideally give a complete picture of changes in quality of life in New Zealand in terms of the environmental, social and economic outlook. Any changes can then be compared and contrasted with the overall vision and direction established at the outset.

6.3 Future demographic prospects

Population trends and movements will contribute to environmental and social pressures and economic growth. A growing population places more demands on land, housing, infrastructure and farming practices, consumes increasing amounts of energy and produces more waste that needs to be disposed of.

Statistics New Zealand points out (SNZ, 2000b) that population trends are difficult to predict but some broad trends can be identified. The population of New Zealand is already close to 4 million and is projected to peak at 4.6 million around 2044. From a global perspective, the world's population tripled in the past fifty years to a level of 6.1 billion, and is expected to grow to a range of between 7.3 and 10.7 billion by 2050 (OECD, 2001c). This will raise both the scale and distribution of pressures on the global environment, and New Zealand will not be isolated from such effects.

The regional distribution of New Zealand's population will continue to change, with the

northern North Island (Northland, Auckland, Waikato and Bay of Plenty) expected to increase its share. The Auckland urban area is projected to have the greatest numerical increase, up from 1 million to 1.4 million - equivalent to adding the current Auckland City population to the area by 2021. By this time Auckland will be home to one-third of all New Zealanders. Overall, New Zealand will become more urbanised in the next two decades, requiring further investment in infrastructure and potentially increasing social pressures on urban communities, and environmental pressures on resources.

The age structure of the population will undergo significant changes and will take on an older profile. A burgeoning elderly population will place increasing pressure on public expenditure on superannuation and health. This may have the effect of reducing the amount of public funding available for environmental management.

6.4 Doing business and maintaining ecological health

This section could also be entitled 'doing business through protecting the environment' since New Zealand's economic and social development relies heavily on the quality and health of its environment, particularly in businesses such as tourism, the growing film industry, fisheries, forestry, agriculture and horticulture. Natural capital contributes some 20% of the per capita wealth in New Zealand, which is four times that of North America and ten times that of Western Europe (see chapter 3). Those who focus primarily on economic growth as the priority for New Zealand's future must also recognise and acknowledge the importance of New Zealand's environment for its overall prosperity.

New Zealanders place a high value on the opportunities and experiences that New Zealand's generally high quality environment offers. New Zealand has many unique species (e.g. Gondwanaland remnants) and natural features that distinguish it from other countries. Tangata whenua have strong cultural and spiritual

connections with the environment, natural resources and places. All these important characteristics of New Zealand have been undermined over many years of human settlement and exploitive resource use ('quarrying'). They will continue to be threatened as a result of poor decisions and policies that do not adequately take into account the potential long-term impacts on ecological sustainability.

Central and local government policies have, over many years, placed emphasis on economic growth, whether this has been in relation to the nation as a whole or regional development. This is to be expected and is a key role for government. Another important role for government is to ensure the provision of public goods¹ and services such as environmental protection, public health, and social welfare. Unless all economic, social and environmental needs are considered together, as part of a 'sustainability assessment', there is a potential for distortions to occur leading to unsustainable growth and long-term adverse consequences.

The government has identified one of its major challenges ahead is to achieve its economic objective: 'to return New Zealand's per capita income to the top half of the OECD rankings and maintain that standing' (New Zealand Government, 2002). The biggest challenge is to do this while also maintaining or improving the environmental conditions on which so much of our economic activity depends. The economy-environment linkage is strategically important for New Zealand, as is maintaining the life-supporting capacities of ecosystems, and valuing natural assets in their own right, independent of their ability to supply human ends.

Work is already underway to develop a set of suitable sustainable development indicators for New Zealand. Another matter that needs to be considered is the inclusion of a statement on the state of natural resources (natural capital) as part of the Statement of National Accounts. With inappropriate incentives towards the use of

natural capital, economic activities can lead to pressures that risk reaching critical thresholds in the regeneration capacity of resources and of inducing irreversible effects (OECD, 2001c).

An assessment of the state of natural resources would provide a picture of the extent to which natural capital has been affected by economic and social policy, and would identify critical pressure points that need to be addressed if we are to continue along a path towards sustainability. Such an assessment of natural capital would need regular updating to enable trends to be assessed.

6.5 Changing trends and behaviour through leadership and public awareness

As outlined in chapter 3 and appendix 2, current trends in consumption are signs that New Zealand is not functioning in a sustainable manner. These include energy and natural resources, production (e.g. of waste), growth in urban areas (e.g. Auckland, Wanaka, Queenstown), biodiversity losses and biosecurity threats (e.g. due to introduced and invasive species), and land-use and water issues (in both rural and urban areas). Current problems can only get worse if New Zealand does not take action now to implement sustainable development-based decision making and behaviour in all sectors of society, from central and local government and the business sector to communities and individuals. Leadership in all sectors will be crucial if New Zealand is to make progress on sustainable development. Effective leadership is needed to influence, coordinate, support and achieve results that will make a difference. While small groups working in isolation may achieve some progress in their own particular areas of interest, at a strategic level a more meaningful and overall shift towards sustainability is more likely to occur when there is a combined effort led by 'champions' of sustainable development. Some sectors have already made significant strides and demonstrated the sort of leadership that is needed (e.g. the New Zealand Business Council on Sustainable

Development and some local authorities such as Christchurch and Manukau City Councils). However, central government still has some way to go to demonstrate its commitment to sustainable development.

6.6 Sustainable development in action

Evidence in New Zealand and overseas suggests that one of the major drawbacks to implementing sustainable development principles has been a general lack of understanding of what the term means in practice. One way of dealing with this is to promote specific activities, such as waste minimisation projects, that in a particular way contribute towards sustainability. Such projects need to have clear, achievable and measurable targets that can be met within a realistic timeframe, and need to demonstrate the connection between choice and consequence. For example, choosing to compost household organic waste reduces the amount of waste sent to landfill, provides nutrients for home gardens and reduces reliance on chemical fertilisers. Introducing organisations and individuals to 'bite-sized chunks' of sustainability projects may be more meaningful than endeavouring to influence behaviour by conveying the notion of sustainability in its broadest but vague sense.

Throughout chapters 3 and 4 of this report there are examples of sustainability initiatives that illustrate achievements by a range of sectors. Sustainable behaviour results from thinking about collective or individual resource use decisions and the consequences of those decisions. Unless the concept of sustainable development and its importance to New Zealand is better understood and more widely accepted, we are likely to see current trends of increasing consumption and production continuing. Better understanding can be achieved through efforts such as education for sustainability, examples of good practice and economic instruments that provide incentives for resource efficiency, resource recovery and an overall reduction of environmental 'bads'.

6.7 Adapting to changing needs and circumstances

Ecological sustainability decisions rely to a large extent on good information, which in turn is the product of good monitoring and research. Situations will arise where ecological sustainability decisions have to be made on the best available, but not necessarily complete, information. In these circumstances both precautionary and adaptive management approaches are useful. This enables decisions to be made in a timely fashion, but sets in place a process to proceed with caution and to review those decisions in the light of accumulated knowledge and new information. When applied to ecological sustainability in particular, adaptive management includes the feedback loop needed to assess trends, establish connections, review progress, and make any necessary adjustments to achieve sustainable development objectives and targets.

6.8 Strategic-based, systems-based and values-based thinking

Sustainable development is a long-term commitment and the results are not necessarily evident in the short-term (e.g. within election cycles). It commits decision makers to consider economic, social and environmental effects on both current and future generations. Actions need to be based on an overall strategy and plan for implementing sustainable development that is intersectoral, embraces community values, and places certain basic obligations on future decision-makers. The Local Government Bill will potentially contribute to achieving this.

Systems thinking is particularly important for ecological sustainability. Component parts of ecosystems cannot be conveniently compartmentalised and managed separately. It is necessary to consider not only the actual and potential effects of an activity on one part of an ecosystem, but also the likely consequential effects on other parts, which may lead to unintended outcomes. Systems thinking is also valuable for considering broad issues associated with such

things as urban development, transport strategies, and methods for decoupling economic growth from unsustainable consumption and production.

A major challenge for local government will be to determine communities' values and expectations in relation to quality of life, quality of the environment and overall well-being, and to find ways to achieve these while maintaining a healthy economy. It will involve 'stepping back' from individual decision problems and framing them in a broader view of what communities want to achieve. From an ecological point of view the challenge is to determine the ecological values that need to be considered in addition to any anthropocentric expression of values.

6.9 Taking responsibility

Sustainability is not something that a government department, local authority or other public agency has sole responsibility for making happen, although they have significant leadership and guidance roles. Sustainability is achieved by organisations, businesses, communities and individuals taking responsibility for controlling the resources they use, the energy they consume, the waste they produce, the impacts they may have on biodiversity, and so on. They can also effectively influence the suppliers from whom they purchase goods and services by choosing only those who offer services or goods that are based on sustainable practices.

Sustainability is more likely to be achieved if the changes it requires, for example to lifestyles, are accepted and become the norm in terms of society's attitudes and behaviour. This will require, among other things:

- understanding and, where appropriate, improving public awareness about sustainability, what it means, and ways in which it can be achieved (contrasted with the consequences of continuing down an unsustainable pathway)
- understanding and giving effect to the attitudes, values and ethical beliefs that New Zealanders hold

- encouraging individuals, communities and organisations to participate in sustainable development initiatives and decision making
- promoting incremental changes that show measurable results over a relatively short timeframe.

6.10 Creating incentives

Governments tend to rely on economic incentives to encourage behaviour modification towards more sustainable practices. Economic instruments on their own are generally not totally reliable since people do not always make choices on the basis of price alone. Economic instruments need to be accompanied by a range of non-regulatory measures such as education for sustainable development, voluntary codes of practice, adoption of practices such as Triple Bottom Line Reporting among organisations, and rewards (and awards) for adopting sustainable practices. These all contribute to bringing about change that can have benefits for society in general or individual stakeholders in particular.

6.11 Growth versus development

Governments' continual emphasis on economic growth as a priority has the potential to accelerate us towards unsustainability if it simply means escalating energy consumption, waste and pollution problems. Instead, emphasis could be shifted to development that produces less waste, adds more value to goods and services, and manages rather than 'quarries' resources. In this context, sustainable development could be regarded as growth that takes account of limitations and consequences, rather than growth for its own sake, which may generate social and environmental burdens on current and future generations. Sustainable urban development, for example, creates rather than destroys communities, and connects people with natural surroundings instead of isolating them from nature. The most important point is that growth is not an end in itself but simply a means to achieve what most people want - quality of life. Thus the challenge of sustainable development is

maintaining and enhancing quality of life that may or may not necessitate economic growth in its traditional sense, i.e. an endless expansion of the economy.

6.12 Coordination of effort and integrated decision making

Within central and local government there are opportunities to break down barriers to achieving sustainability. Barriers include the structure, funding and nature of government departments that encourage them to operate within a narrow focus (e.g. with particular interests in promoting either economic, social or environmental objectives) and to compete in relation to the policy advice they provide to the government. The report of the Advisory Group on the Review of the Centre, released by the Minister of State Services in December 2001 concludes that, although the New Zealand public management system provides a sound platform on which to build, it needs to meet more effectively the needs of Ministers and citizens. It proposes improvements such as integrating service delivery across multiple agencies; addressing fragmentation of the State sector; and encouraging strong leadership. Government departments will be expected to set up inter-agency teams to deal with operational matters that cross over into each other's areas. This coordination and collaboration also needs to be encouraged for addressing matters of national strategic importance for New Zealand, including sustainable development.

6.13 Encouraging local initiatives

There are many examples of local initiatives to promote sustainability, some of which have been highlighted in this report. Local authorities and the private sector have supported some of these initiatives, and others have received financial support from the Ministry for the Environment's Sustainable Management Fund. Consideration needs to be given to establishing a 'Sustainable Development Fund'. This would have a stronger focus on sustainable development, encouraging

initiatives that meet combined environmental, social and economic objectives.

6.14 Legislative principles

Recent legislation such as the Energy Efficiency and Conservation Act 2000 and proposals in the Local Government Bill introduce into their purpose and principles statements the concept of sustainability. This is an important step in implementing the government's economic, social and environmental policies and needs to be encouraged in the development of future legislative proposals that have similar objectives.

6.15 Research

The Foundation for Research, Science and Technology has sustainability research investments of over \$57 million per year and is undertaking a review of these between February and October 2002 to clarify future directions and stimulate new relationships amongst a range of stakeholders prior to the 2002/03 reinvestment process. This is an opportunity for research providers and others with an interest in sustainability issues to become involved in guiding future investments in this research.

Sustainability research into human settlements (our towns and cities) is a particularly critical need. Research to underpin the design and governance of our cities is scattered and not tied into current governance systems (local and central) that impact on city development and functionality in its widest sense. Given that more than 85% of New Zealanders live in towns and cities, the implementation of sustainable development must be human settlement focused. Government investment, despite recent increases, and research capacity are woefully underdeveloped in this area.

6.16 Encouraging dialogue on sustainability

As noted earlier, sustainable development and sustainability are difficult concepts to understand.

This is partly because they are ill-defined and partly because the term 'sustainable' has been applied to mean different things in different contexts (e.g. 'sustainable economy' and 'sustainable business' have a different interpretation than, for example, 'sustainable urban environments' and 'sustainable ecosystems'). Opportunities for public debate on sustainability are important if the key principles behind the concept are to be understood, clarified and put into effect through central and local government policies, business plans, and individuals' decisions. The forthcoming World Summit on Sustainable Development (WSSD) in August/September 2002 creates a timely opportunity for the media to be catalysts for such debate, to provide commentary on what sustainable development means for New Zealand, and to convey expressions of New Zealanders' values related to sustainability.

6.17 Capacity and capability

If sustainable development is to become a cornerstone of future economic, environmental and social policies, it will be necessary to ensure that within central and local government and within research institutes there is the capacity and people with the capability of making the links between all three dimensions of sustainability. Among tertiary education establishments there needs to be thought given to the design of courses that offer the development of skills in the sort of systems thinking and integrated analysis associated with sustainable development.

6.18 Post-WSSD follow-up - Rio+15

It is important that the momentum built up in the period leading up to the WSSD is carried through after the summit, particularly any follow up action on sustainability to which New Zealand is committed. The Parliamentary Commissioner for the Environment, therefore, intends to undertake a review of progress on sustainable development during 2006/07, and report his findings to Parliament.

6.19 Recommendations

Responsibilities for sustainable development policies and actions come under a range of Ministerial portfolios and local government functions in the environmental, social and economic areas. For this reason, where a recommendation refers to the need to coordinate policy in all three areas, it has been directed to the Prime Minister. In other cases, recommendations have been directed to the relevant Minister or Ministers, or to local government.

Vision and framework for sustainable development

1. That, as part of the development of the proposed New Zealand Sustainable Development Strategy, the Prime Minister develops a range of policy, legislative, economic and voluntary measures designed to progress the implementation of sustainable development. These measures should include:
 - a. a position (or vision) statement outlining the goals and objectives of the Government's policy on sustainable development
 - b. a timeline for meeting objectives and measurable targets
 - c. a timeline and processes for reviewing the position (or vision) statement and associated goals and objectives
 - d. adoption of Agenda 21 principles into current and future environmental, economic and social legislation reviews.
2. That the Minister of Local Government, in consultation with Local Government New Zealand, develops guidelines for local authorities on preparing long-term community plans dealing with environmental, economic, social and cultural sustainability, as proposed under the Local Government Bill. Such guidelines should be consistent with the principles of Agenda 21.

Implementation, monitoring and review of sustainable development

3. That the Prime Minister should establish an advisory body responsible for overseeing and

coordinating the implementation of the Government's proposed New Zealand Strategy on Sustainable Development, including:

- actively promoting activities and education programmes that will increase public awareness of sustainable development
 - reviewing government departments' performances in working individually and collaboratively to meet sustainable development goals and objectives
 - providing support and guidance to local government and non-government organisations to ensure effective implementation of sustainable development at the local community level
 - encouraging sustainable development initiatives and partnerships among central and local government, private sector and non-government organisations
 - reviewing sustainability research priorities, capacities to undertake it and mechanisms for the application and adoption of the research.
 - monitoring, reviewing and reporting on progress towards sustainable development goals and objectives.
 - encouraging local authorities to regularly review and report on the effectiveness of resource management policies and plans, as well as the proposed long-term community plans under the Local Government Bill, in achieving the goals and objectives of the proposed New Zealand Strategy on Sustainable Development.
4. That the Minister of State Services, in consultation with the Minister of Local Government and Local Government New Zealand, identifies the capacity and capability issues associated with implementing sustainable development, and introduces methods to improve skills in integrating environmental, social and economic policy analysis and implementation.

¹ Unlike 'private goods', which are typically traded in a market and the ownership and use of which can be transferred making them excludable and rival, 'public goods' are non-excludable and non-rival in consumption. It would be extremely difficult, costly and highly inefficient to limit their use to only a few persons. Examples of public goods (or services) include street lighting, traffic lights and clean air.