



Learning to Care for Our Environment *Me Ako ki te Tiaki Taiao*

ISBN 0-478-09028-5

Published by the Ministry for the Environment PO Box 10-362 Wellington New Zealand

June 1998

Foreword -

The world is becoming increasingly aware of issues concerning the environment and New Zealand is no exception.

The *Environment 2010 Strategy*, released in 1995, highlighted the Government's vision for the environment; "A clean, healthy and unique environment, sustaining nature and people's needs and aspirations".

The *Environment 2010 Strategy* stated that "sustainable management of our environment will only be advanced through all New Zealanders understanding and accepting responsibility for the quality of our environment and our impact on it."

There is an increasing appreciation that we all have a part to play in protecting and sustaining the environment. Environmental education is the key to providing people with the knowledge, awareness, attitudes and values that will assist them in this task. Environmental education is not just a priority for school children, it must be a lifetime commitment for all of us.

Some excellent environmental education work has been undertaken by a number of people and organisations in recent years. However, there is a clear need for a strategic approach to environmental education that clarifies priorities, sets directions for future activities and makes effective use of the resources allocated to these activities.

Partnerships need to be developed between all sectors involved in environmental education. All sectors have a role to play in the provision of environmental education and the implementation of the national strategy. Working together will ultimately lead to better use of limited resources, better coordination and greater appreciation of the role of environmental education in sustaining the environment.

The development of an environmental education strategy is an important step in providing the leadership and the framework to point us all in the same direction. A strategy will give formal recognition of environmental education as an effective contribution to achieving the vision set out in the *Environment 2010 Strategy*.

Simon Upton

Minister for the Environment

Wyatt Creech

Minister of Education

Deborah Morris

Associate Minister for the Environment

Brian Donnelly

Associate Minister of Education

mashuch

Contents _____

1	Introduction	7
2	The nature and scope of environmental education	9
	2.1 What is environmental education?	9
	2.2 Why is environmental education important?	9
	2.3 What are the aims of environmental education?	10
	2.4 Who provides environmental education?	11
	2.5 What activities are included in environmental education?	11
3	The Government's interest in environmental education	13
	3.1 Supporting formal education	13
	3.2 Transferring the knowledge gained through research and practice	13
	3.3 Using environmental education as a policy instrument	14
	3.4 Fulfilling the partnership responsibilities of the Crown	14
	3.5 Clarifying the Government's outcomes	15
4	The Government's strategic priorities for environmental education	16
5	Actions	20
6	Roles and activities of other organisations	26
	6.1 Local government	27
	6.2 Schools and Teachers	27
	6.3 Tertiary education	27
	6.4 Tangata whenua	28
	6.5 Industry	28
	6.6 Environmental NGOs	28
	6.7 Media	29
7	Monitoring the implementation of the strategy	30

Moving towards the goal of **sustainability**

requires fundamental changes in human attitudes and behaviour.

Progress in this direction is thus critically dependant on

education

and public awareness.

Education must not be equated with schooling or formal education alone. It includes

non-formal

and

informal

modes of instruction and learning as well as including

traditional learning

acquired in the home or community.

The critical contribution of environmental education to protecting and managing the environment has been recognised internationally. Its importance is stressed in the 1980 World Conservation Strategy, produced by IUCN (the World Conservation Union) and the World Wildlife Fund. It is also recognised in the United Nations' Agenda 21, the global framework for action adopted by the 1992 Conference on Environment and Development. More recently, the importance of environmental education has been stressed in the 1997 UNESCO document Education for a Sustainable Future:...A Transdisciplinary Vision for Concerted Action.

In the *Environment 2010 Strategy*, the New Zealand Government also recognised the important contribution environmental education can make to our understanding of the environment and to environmentally sound decisions. A commitment was made by the Government in the *Environment 2010 Strategy* to the promotion of environmental education throughout the community.

The purpose of this document is to underline the importance placed by the Government and other parties on environmental education activities and to provide a framework for the promotion of these activities. It is the product of wide consultation with people interested in environmental education.

"Education" is usually associated with schools and other formal educational institutions. In this document however, the term environmental education embraces a wide range of learning activities that inform people about the environment and how it can be protected and managed. The scope and nature of environmental education is discussed in more detail in the following chapter.

Environmental education activities are already taking place within a wide range of sectors, for example, educational institutions, government departments, local authorities and non-governmental organisations. The diverse and extensive nature of these activities is a necessary response to specific needs and local circumstances.

The consultation undertaken by the Ministry for the Environment strongly suggested that a better coordinated approach to environmental education activities could enhance opportunities for:

- · sharing of experience by practitioners
- · identifying gaps in current activities
- · pooling resource material
- improving the effectiveness of activities
- · setting clearer priorities
- · providing resources for activities.

A major objective of this strategy is to help take advantage of these opportunities.

The nature and scope of environmental education –

2.1 What is environmental education?

There are many definitions of environmental education. The one which has been adopted by Government in the New Zealand *Environment 2010 Strategy* and the 1996 discussion document *Learning To Care for Our Environment* is:

A multi-disciplinary approach to learning that develops the knowledge, awareness, attitudes, values and skills that will enable individuals and the community to contribute towards maintaining and improving the quality of the environment.

The common elements of this and other definitions for environmental education include:

- · the influence of environmental education on values, attitudes and behaviour
- the multi-disciplinary nature of environmental education and the emphasis on linkages between the biophysical environment, social, economic and political activities
- the contribution of environmental education to protecting and managing the environment
- the range of learning activities encompassed by environmental education which include formal and non-formal education.

Environmental education is therefore not just about classroom learning but about all learning activities intended to inform people about the environment and its management.

The extensive nature of environmental education activities is illustrated in Table 1 (see page 12). This list illustrates the types of organisations providing environmental education. It is not exhaustive.

2.2 Why is environmental education important?

There is now a wide appreciation of the damage being done to the environment through human activity. This damage is sometimes global, as in the case of the depletion of the ozone layer and of the increase in greenhouse gas emissions. Often the damage is regional, as with pest degradation of native forests, or the erosion of river catchments. Often too, the damage is local. Pollution from motor vehicles, contamination of soil by chemicals, sewage discharges; these and hundreds of other human activities stress the environment. The impact of these activities in New Zealand has been clearly illustrated in *The State of New Zealand's Environment 1997*.

An effective policy framework for protecting and managing the environment requires an integrated approach that includes sound legislation, good knowledge about the environment, the communication of information, and responsible behaviour by individuals and communities. Within this framework, environmental education contributes to the communication of information and to the development of understanding, skills, attitudes and values that influence the behaviour of individuals and communities.

2.3 What are the goals and objectives of environmental education?

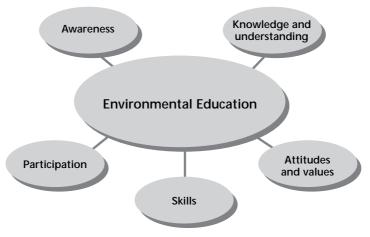
The goal being pursued through the National Environmental Education Strategy is one where individuals and communities have the knowledge, skills and attitudes that enable them to take informed decisions affecting the environment.

A widely-acknowledged set of aims for environmental policy for environmental education was set out at the Inter-governmental Conference on Environmental Education, held in Tbilisi in 1977.

The following objectives of environmental education, adapted from the Tbilisi Declaration, will guide the implementation of this strategy:

- **awareness:** to help people to understand the impacts of our activities on the environment and our responsibilities
- **participation:** to provide people with the capacity to be actively involved at all levels in helping resolve environmental problems
- **attitudes and values:** to help people acquire values of concern and responsibility for the environment and be motivated to care for the environment
- knowledge: to help people gain experience in and a basic understanding of the environment and human interaction within it
- skills: to help people acquire the skills to participate effectively in decision
 making that affects the environment and to play a part in identifying and solving
 environmental problems.

The five components of Environmental Education



2.4 Who provides environmental education?

There are many providers of environmental education. Within the formal education sector, these providers can include primary and secondary schools, the colleges of education, the universities, and other tertiary institutions. The Ministry of Education publishes the national curriculum statements which include some explicit environmental education objectives but also many other opportunities for outcomes to be achieved using environmental education examples and activities. The curriculum documents are supported by teacher guides and by student learning materials produced by Learning Media Ltd through its contract with the Ministry of Education.

Outside of the formal education sector there is a wide variety of providers that undertake environmental education activities. These include government departments undertaking specific programmes or less formal activities to promote the implementation of policy. They also include local authorities which could use environmental education as a tool to achieve objectives of policies and plans.

But providers extend well beyond central and local government. Crown research institutes, environmental NGOs, private institutions, landcare and other similar community groups, industry groups, and the environmental consulting industry are amongst those that undertake activities that may be seen as "environmental education".

2.5 What activities are included in environmental education?

The range of environmental activities is as extensive as the spectrum of providers. Some of these activities are briefly described in Table 1. The methods of delivery also vary. Environmental education involves a mixture of approaches and types. One useful classification includes three types:

- 1. education **about** the environment providing information about environmental phenomena
- 2. education **in** the environment using field studies and other outdoor activities for learning and skill development
- 3. education **for or with** the environment where the activity is directed at influencing environmental concerns.

All three types of environmental education are valuable. One of the intentions of this strategy, however, is to encourage increased emphasis on those activities that will influence the way people treat or manage the environment.

 Table 1
 Environmental Education Providers and Contributions

Providers	Contributions
Formal Education Providers	
Pre-School: kindergarten, kohanga reo, child-care centres.	Living skills, environmental concern, sensory awareness, creativity, cooperation, role modelling.
Schools: government and non-government primary schools; secondary schools, kura kaupapa Maori.	Environmental education within the New Zealand curriculum including outside the classroom for students.
Colleges of Education	Teacher training.
Tertiary: universities, whare waananga, polytechnics.	Wide range of subjects relevant to environmental management (natural science, social science and in some cases, integrated environmental studies).
Non-Formal Education Providers	
Government agencies:	Coordinate and support policies through specific education programmes (e.g. MAF as part of its Sustainable Agricultural Policy). Coordinate and support policies developed under the RMA-target information, advisory services and education initiatives to priority
Maori through pan-tribal and hapu-and iwi-based initiatives.	areas. Needs and approaches vary from council to council. Waananga on resource management planning and whakapapa.
Industry training; on-the-job training.	Specific workplace focused education to enable industry to comply with regulations and be responsible environmental citizens.
Professional development: professional associations; private providers	Architects, Engineers etc. professional accreditation (e.g. NZ Planning Institute accreditation) .
Crown Research Institutes	Translate research results into accessible information.
Community based adult education providers: community centres, evening and community colleges, community adult education centres.	Short courses, networks and activities which develop individuals' environmental management and participation skills, interests and capacities.
Unions: (those associated with building and development, agriculture, education, environment and health)	Policy; advocacy, green action/ bans/ protests/ occupational health and safety, education and training programmes.
Industry interest groups and associations (e.g. Federated Farmers, FOMA, NZ Fruitgrowers Fed, Woolgrowers etc).	Policy and advocacy, general advice and information.
Environmental interest groups.	Promote awareness, advocacy and debate, educational material and information services, field and site specific activities, opportunities for direct community involvement in conservation.
Other community organisations, youth groups, church groups, service organisations.	Developing concern, environmental responsibility and competency.

The Government's interests in environmental education -

The Government has several interests in environmental education. This section sets out those interests and stresses the importance of environmental education within the formal education sector and in influencing decisions people make about the protection and management of the environment.

3.1 Supporting formal education

One of the Government's most important interests in environmental education reflects its involvement in the formal education sector. Education is one of the most important investments the Government makes. School and tertiary education helps equip people with the knowledge, skills, attitudes and values that will enable them to contribute constructively to the community and to meet their own personal needs. The New Zealand Curriculum Framework (the overall policy statement on the school curriculum) and individual national curriculum statements make clear references to studies in, and of the environment. The Framework statement and the national curriculum statements have also been developed and published in Te Reo Maori for those students who learn through the Maori language.

Environmental education makes a specific and useful contribution to people's knowledge about the biophysical, social, economic and political dimensions of environmental management. Several core curriculum subjects include aspects of environmental education.

3.2 Transferring the knowledge gained through research and good practice

A second interest of the Government is in promoting the application of knowledge, gained through research and practical experience, to solving environmental problems and to the sustainable management of resources. The Government invests substantially in "environmental" research and in educational activities such as the Ministry of Agriculture and Forestry's "Sustainable Agriculture Facilitation Programme" and the Sustainable Land Management Strategy's "Best Management Practices Programme", coordinated by the Ministry for the Environment. The Government wishes to see its investment in research achieve practical benefits through the sharing and the use of the knowledge gained and through effective communication.

3.3 Using environmental education as a policy instrument

A third interest of the Government in environmental education reflects the role that "education" can play as an effective instrument for implementing policy. Although the Government has a range of instruments that it can use (eg taxes, national policy statements, regulations and national standards), environmental education has some inherent characteristics that can make it the instrument of first choice or a useful complement to other instruments. For example, it is non-prescriptive, promotes understanding, provides choice and does not, in itself, require legislation. The Ministry of Agriculture and Forestry's Education Programme for Sustainable Agriculture, and the Ministry for the Environment's programme for improving practice under the Resource Management Act are examples in which "education" is used to help implement environmental policies.

3.4 Fulfilling the Treaty partnership responsibilities of the Crown

A further interest of the Government is to fulfil the partnership responsibilities of the Crown under the Treaty of Waitangi. In respect to environmental education, these are fulfilled through the broader education system and through the implementation of specific legislation.

The recognition of the Treaty of Waitangi in the Courts has given impetus to the incorporation of provisions relating to the Treaty and Maori interests in legislation including the Environment Act 1986, the Resource Management Act 1991, the Conservation Act 1987 and the Fisheries Act 1996.

The provisions of the Resource Management Act specifically recognise Maori environmental values and practices, including the exercise of kaitiakitanga.

The following range of outcomes is important if these provisions are to make a full contribution to the sustainable management of natural and physical resources:

- matauranga Maori (traditional Maori knowledge) as it relates to environmental management is maintained and enhanced
- tangata whenua possess the knowledge and skills necessary to participate in resource management decision-making processes
- tangata whenua have access to the results of scientific research
- effective working relationships are developed between tangata whenua and others involved in resource management
- the wider community is informed about and understands the relationship of Maori with the environment.

3.5 Clarifying the Government's outcomes

The Government has clarified the environmental outcomes it is pursuing in the *Environment 2010 Strategy*. In promoting a strategic approach towards environmental education, the Government wants to clarify the outcomes it wishes to achieve. These outcomes give strategic direction to specific activities. The environmental education outcomes being sought by the Government are:

- individuals, families and communities with the knowledge, skills, attitudes and values that result in sound environmental behaviour
- the effective transfer of knowledge gained from research and good practice to those that need it
- tangata whenua have the knowledge and skills necessary to fulfill their responsibilities as kaitiaki (see section 3.4)
- the effective use of environmental education to help people and organisations understand and implement environmental and other policies
- the well-informed participation of communities in issues affecting their environment
- the effective integration of environmental education within the school curriculum
- integration of environmental education into business and professional education in a wide range of sectors.

The Government's strategic priorities for environmental education.

To achieve the outcomes it is seeking, the Government has identified the following areas as priorities for the next three years. These priorities will influence the specific actions taken by government agencies during this period. The ordering of these priorities is not an indication that one is more important than another but collectively they indicate where the Government considers the main effort of environmental education activities should go in the next three to five years.

Priority One:

encouraging the integration and coordination of environmental education activities

Priority Two:

evaluating and improving the effectiveness of environmental education activities in the transfer of knowledge and the implementation of policy

Priority Three:

maintaining and enhancing the capacity of tangata whenua to fulfill their responsibilities as kaitiaki

Priority Four:

incorporating the aims of environmental education across the school curriculum

Priority Five:

promoting environmental education in business education and training

Priority Six:

providing individuals and communities with the information and understanding to enable them to make environmentally sound decisions

Priority One: encouraging the integration and coordination of environmental education activities

Environmental education activities are extensive and diverse. There are numerous potential providers and a wide range of separate activities. One of the clear messages received during the preparation of this strategy is that there are many opportunities for the sharing of information, the building of partnerships and for integrating environmental education activities.

Priority Two: evaluating and improving the effectiveness of environmental education activities in the transfer of knowledge and the implementation of policy

Resources are allocated by the Government and other parties to environmental education activities. For these resources to be used efficiently, it is necessary to know what makes environmental education activities effective. The Government is interested in what works well in changing people's behaviour and will provide resources for evaluating and improving the effectiveness of its environmental education activities.

Priority Three: maintaining and enhancing the capacity of tangata whenua to fulfill their responsibilities as kaitiaki

Changes in environmental legislation in recent years have considerably increased both the opportunity for tangata whenua to participate in resource management decision-making and practice, and the responsibility placed upon them in the exercise of kaitiakitanga. The education requirements of tangata whenua in this area are diverse, and potential providers span both the formal and non-formal education sectors. The Government is interested in providing opportunities for sharing information, building partnerships and for the identification and integration of environmental education activities as they relate to tangata whenua and to Maori in general.

Priority Four: incorporating the aims of environmental education across the school curriculum

The new school curriculum (which has been comprehensively revised through the 1990's) provides opportunities for environmental education across its seven essential learning areas, especially in Science, Technology and Social Studies. Those involved in environmental education in schools have recognised for some time that clear guidance should be provided to teachers as to how the objectives of environmental education, outlined in section 2.3, can be met in the teaching of these core subjects.

Priority Five: promoting environmental education in business education and training

Businesses increasingly appreciate the commercial implications of environmental policies and the importance of meeting national and international standards. Many businesses are involved in the education and training of their own staff (eg through industry training organisations) and in the development of educational resources relevant to their own activities.

Priority Six: providing individuals and communities with the information and understanding to enable them to make environmentally sound decisions

Individual and community decisions can contribute to damage to the environment. Sometimes this damage is caused unwittingly because of the lack of knowledge of environmental effects or a full understanding of the environmental costs. Cumulative damage leads to calls for government or council intervention. Effective programmes of environmental education can promote environmentally sound behaviour. They can reduce the need for regulation or complement other methods of implementing policy.

Environmental education activities are undertaken by a wide range of institutions and organisations. The community interest in environmental education is not limited to the Government. The Government expects local government, business and sector organisations, environmental NGOs, iwi and other members of the community to play a constructive role in promoting environmental education. However, the Government is well placed to:

- **provide** a leadership role in promoting environmental education
- · undertake environmental education activities relevant to its own responsibilities
- support financially (eg through the Sustainable Management Fund)
 environmental education activities, where these involve a significant public
 good element and are consistent with the priorities outlined in this Strategy
- encourage others to undertake or participate in environmental activities.

The production of this Strategy contributes to the Government's leadership role. In the section that follows, specific information is provided about environmental education activities that the Government will undertake, support and encourage in accordance with the priorities established above.

Priority One: encouraging the integration and coordination of environmental education activities

The Government will:

undertake by September 1998 to establish a Coordinating Group representing the range of sectors involved in environmental education. The group will be convened by the Secretary for the Environment. The principal role of this group will be to act as a forum for the collective consideration of environmental education activities and to encourage the integration of activities including forming partnerships for implementing specific environmental education initiatives. The Coordinating Group will also provide the Secretary for the Environment with advice on future activities to further the goal and objectives of the Strategy.

Lead Agency: Ministry for the Environment

undertake the role of a catalyst for promoting environmental education in accordance with the Government's Environment 2010 Strategy. Because environmental education activities are diverse and dispersed, there is a need for an agency to fill a coordinating and catalytic role in promoting these activities and in facilitating information flows between different parties. The Ministry for the Environment will undertake to fill this role. It is possible that non-government mechanisms may develop that could replace or complement the present role of the Ministry for the Environment, but in the meantime, the Ministry will be resourced to continue this role.

Lead Agency: Ministry for the Environment

support the preparation, during 1998-99, of a stocktake of curriculum-based environmental education resources. There are numerous resource materials, produced by various sectors, which are regularly distributed to schools. Very few of these materials are specifically designed for environmental education. Even fewer are useful in the classroom as they often do not illustrate the curriculum links which teachers can make in teaching environmental education. During the consultation leading to this Strategy, it became clear that there could be a better coordinated approach to making the availability of environmental education material more widely known. The creation of an easily accessible national stocktake or database of resource material was advocated. The development of this proposal will be facilitated by the Ministry for the Environment in association with other parties. The scope of the exercise could be broad and initial work may need to focus on priority areas such as the activities of local authorities.

Lead Agency: Ministry for the Environment

encourage and support the development of guidelines and case studies for the implementation of environmental education programmes by local authorities. A strong interest was expressed at a 1997 local government workshop on environmental education for the development of guidelines that would assist local authorities who wish to develop a strategic approach to the use of environmental education. The development of this proposal during 1998-99 will be facilitated by the Ministry for the Environment in collaboration with Local Government New Zealand and local authorities.

Lead Agency: Ministry for the Environment

Priority Two: evaluating the effectiveness of environmental education activities in the transfer of knowledge and the implementation of policy

The Government will:

encourage and support workshops and other opportunities during the initial period of the strategy, that will assist those involved in environmental education activities to learn what contributes to an effective activity and how activities can be evaluated. It is clear from experience that some environmental education activities are more effective than others. There is considerable potential for those involved in environmental education activities to learn from the experience of others and to incorporate provisions in the design of activities that will assist in their evaluation. Initial attention will be given during 1998-99 to those activities promoting "best management practices" in sustainable land use. This work will be facilitated by the Ministry for the Environment in collaboration with the Ministry of Agriculture and Forestry, Department of Conservation and the Ministry of Research, Science and Technology. Subsequent attention will also be given to the environmental education activities directed at other priority areas identified by the Coordinating Group and the Maori focus group.

Lead Agency: Ministry for the Environment

Priority Three: maintaining and enhancing the capacity of tangata whenua to fulfill their responsibilities as kaitiaki

The Government will:

undertake by September 1998 to establish a Maori Focus Group to act as a forum for the consideration of environmental education activities as they relate to tangata whenua. This group will be convened by the Secretary for the Environment and will have a role which complements that of the Coordinating Group established under Priority One. That is, the group will act as a forum for the collective consideration of environmental education activities relevant to tangata whenua, including forming partnerships for the implementation of specific environmental education initiatives. It is envisaged that this group will consist of members from government and non-government organisations and that it will select representatives to participate in the Coordinating Group. As with the Coordinating Group, the Maori Focus Group will also provide the Secretary for the Environment with advice on future activities to further the goals and objectives of the Strategy.

Lead Agency: Ministry for the Environment

Priority Four: incorporating the aims of environmental education across the school curriculum

The Government will:

undertake the preparation of Guidelines for Environmental Education in Schools. Environmental education in schools is principally undertaken within the science, technology and social studies learning areas of the new curriculum. The need has been identified for guidance to teachers on integrating environmental education across the curriculum. Some work has been done on the preparation of guidelines for schools but additional work is needed to take account of the publication of national curriculum statements still under development (for Health and Physical Education and the Arts) and of the Government's overall environment and environmental education strategies. This work will be undertaken in 1998/99. The intention is that the guidelines would be endorsed by key departments and ministries including: Education, Environment, Conservation and Te Puni Kokiri.

Lead Agency: Ministry of Education.

encourage projects which aim to develop resource materials which are fully integrated into the school curriculum. The national environmental education guidelines currently under preparation by the Ministry of Education will not, in themselves, provide resource materials that can be used directly by teachers. Although some resource materials already exist (and their availability will be more clearly identified through the stocktake proposed under priority one), it is clear from the consultation that teachers need additional, practical assistance in the way of suitable resource material and appropriate inservice training. The Government will provide through the Sustainable Management Fund (SMF), opportunities for funding the development of materials, programmes and other environmental education activities for use within the school curriculum.

Lead Agency: Ministry for the Environment as SMF administrator

Priority Five: promoting environmental education in business education and training

The Government will:

undertake during 1998-99, a review of the "environmental education" components of the Industry Training Organisations Unit Standards in Environmental Education. Industry Training Organisations play an important role in providing training opportunities for employees within particular sectors, including some directly involved in aspects of environmental management. The proposed review would consider the nature and extent of the coverage of environmental issues within the relevant unit standards. The exercise is expected to provide information which would ensure that in any review or further development of unit standards, environmental issues would receive appropriate attention.

Lead Agency: Ministry for the Environment

encourage during the initial term of the Strategy (1998-2001) the active participation of the business sector in environmental education activities that will improve public knowledge of the environmental effects of its activities. Some businesses are already active in environmental education activities, for example, the forestry industry's Forest Insights Programme for use in schools. The Environmental Business Networks exist in some regions and support businesses in providing information and training on reducing the environmental effects of business activities. The potential contribution of business to environmental education is high and the Ministry will work with business to encourage the realisation of this potential.

Lead Agency: Ministry for the Environment

Priority Six: providing individuals and communities with information and understanding to enable them to make environmentally sound decisions

The Government will:

undertake environmental education activities as an integral part of policy development and implementation. The Environment 2010 Strategy underlined the importance of information and social participation in achieving the vision of "a clean healthy environment, sustaining nature and people's needs and aspirations". Environmental education processes can play an important part in ensuring that people can have an informed role in the development of policy and in its implementation. Significant policy development proposals affecting the environment will explicitly include provisions for informing and involving people. Programmes will also be developed that will optimise the role of environmental education in policy implementation.

Lead Agency: Ministry for the Environment in collaboration with other government agencies

support through the Sustainable Management Fund (SMF), activities that: foster the understanding of human impacts on the environment and ways to minimise their impact; encourage local government, industry, iwi and the rest of the community to develop policies and action plans that acknowledge their roles in environmental education; and encourage partnerships to be developed between the various sectors to ensure the best use of limited resources and to build on existing strengths. Most SMF-funded projects will include an element of environmental education. In 1998-99 and possibly for the following two years, a specific priority for SMF funding has been identified that is intended to support projects intended to directly influence attitudes and behaviour. The Guide to Applicants is available from the Ministry for the Environment or on the Internet: http://www.mfe.govt.nz.

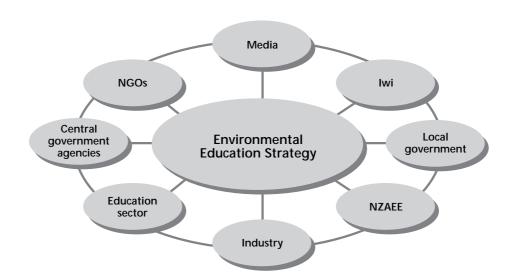
Lead Agency: Ministry for the Environment as SMF administrator

environmental NGOs and other parties in developing and implementing environmental education activities that will further New Zealand's environmental goals as outlined in the Environment 2010 Strategy. As has been pointed out elsewhere in this document, environmental education activities are undertaken by a wide range of organisations beyond the agencies of central government. Local authorities, industry organisations, landcare groups, environmental NGOs are amongst those who have an important role to play. In this next chapter the role and the contributions of some of these organisations is briefly described. This document cannot speak for these organisations. However, it can clearly indicate the interest of government in working with them, in forming partnerships where this is practical, and in having representatives of these groups participate in the Environmental Education Coordinating Group that the Ministry for the Environment will convene.

Lead Agency: the Ministry for the Environment

Roles and activities of other organisations

Many different sectors, organisations and individuals have a role to play in environmental education. All have the potential to contribute effectively to sustainable development of our environment. The effectiveness of environmental education in engaging environmental protection and management issues will depend largely on the extent to which providers develop some shared understandings of environmentally responsible behaviour, common environmental education goals and a cooperative approach to achieving them. People are generally more likely to develop relevant environmental knowledge, attitudes, skills and behaviour when environmental education activities are action-oriented and focused on their own community. The Government acknowledges this point and recognises that in order for environmental education to be effective and successful there is a need for the individual sectors to be responsible for developing their own programmes and strategies. The range of sectors which can be involved in environmental education is wide ranging. Some of the sectors and their activities are described in this chapter.



6.1 Local government

Local government is the sphere of government closest to the people and the environmental issues in the community. Environmental education can be an important tool for councils in carrying out their functions and fulfilling their responsibilities under the Resource Management Act. It can also have a role in achieving other local body objectives in relation to pest management, public health, heritage and local implementation of Agenda 21.

There are many approaches to incorporating environmental education into the work plans of councils. Some regional and city councils have explicit environmental education programmes well integrated with the functional activities of the councils. Other councils may have less explicit approaches.

6.2 Schools and teachers

Within the formal education sector, it is school teachers who are on the front line of delivering environmental education. Although central government can provide guidance to teachers and encourage the production and distribution of teaching materials, the delivery of environmental education in schools is largely dependent on the knowledge and enthusiasm of individual teachers. Teachers in turn can be supported by networks (such as the Association for Environmental Education), opportunities to share resources and through their Boards of Trustees.

6.3 Tertiary educational institutions

Colleges of education, universities and polytechnics play an important role in the formal environmental education sector. Colleges of education and universities provide training for teachers involved with environmental education in the core curriculum. Other tertiary institutions provide environmental papers integrated with other courses (such as engineering and planning) and a number have multi-disciplinary environmental degree and diploma programmes.

6.4 Tangata whenua

The Treaty of Waitangi gives tangata whenua a central interest in the way the environment is managed. Many of the concerns brought to the Waitangi Tribunal by hapu and iwi highlight the contribution that Maori approaches can make to environmental management. As far as tribal knowledge of environmental practice is concerned, hapu and iwi have a primary role in passing on that knowledge according to their own tikanga. Some Maori educational institutions have developed through iwi initiatives and now form part of our formal education system. In addition, there are many ways in which hapu and iwi form partnerships with other organisations, including polytechnics, universities and local government, to explore and pass on knowledge about their own practices, scientific research and environmental policy and legislation.

6.5 Industry and industry groups

Compliance with the Resource Management Act and with the growing number of international environmental standards is placing increased demands on managers and employees to be well informed about environmental issues. Cleaner production programmes offer the opportunity for businesses to involve their staff in finding ways to use raw materials and energy more efficiently, to reduce waste and to produce environmentally sound goods and services. Industry groups have taken the lead, in some cases, to develop "codes of practice" for their members. Industry understands that voluntarily complying with high environmental standards will reduce the need for regulations imposed by local or central government.

6.6 Environmental non-government organisations and community organisations

The role of environmental organisations in environmental education can include drawing public attention to environmental concerns, playing a valuable role in both specialist and public debates and providing educational materials and environmental information services.

Some of the larger environmental organisations employ specialist staff who can include education officers. Smaller organisations often depend on the work of volunteers. Larger groups may be involved in national debates and the development of government policy. Branches of these groups or smaller community groups can play a valuable role in facilitating discussion around specific local issues.

The New Zealand Association for Environmental Education provides a valuable network for professionals involved in environmental education.

6.7 Media and the Internet

For most people, the media is the principal source of current information about environmental issues. Increasingly, the Internet is becoming a source of international and national news and events (such as the Kyoto Climate Change Conference) can be accessed in "real time". The accuracy, depth and balance of daily news varies substantially but the existing influence and the potential role of the media in influencing attitudes and behaviour towards the environment, is substantial.

Monitoring the implementation of the strategy

Three mechanisms will primarily be used to monitor the implementation of this strategy.

The first will be through the creation of the Environmental Education Coordinating Group and the Maori Focus Group, both of which can be expected to meet twice a year. These Groups will have a range of responsibilities but one of these will be to advise the Secretary for the Environment on the implementation of the Strategy and priorities for action.

The second will be through the annual stocktake of progress in the implementation of the *Environment 2010 Strategy*. This mechanism is already in place and involves the preparation each year of a report to Government on progress in the implementation of the *Environment 2010 Strategy*.

The third mechanism is through the four yearly cycle of more comprehensively reviewing the *Environment 2010 Strategy*. This review is scheduled for 2000 and will involve a reconsideration of environmental priorities and progress towards the goals established in the *Environment 2010 Strategy*.

About the Ministry for the Environment -

Making a difference through environmental leadership

The Ministry for the Environment advises the Government on policies, laws, regulations, and other means of improving environmental management in New Zealand. The significant areas of policy for which the Ministry is responsible are management of natural resources; sustainable land management; air and water quality; management of hazardous substances, waste and contaminated sites; protection of the ozone layer; and responding to the threat of climate change. Advice is also provided on the environmental implications of other Government policies.

The Ministry monitors the state of the New Zealand environment and the operation of environmental legislation so that it can advise the Government on action necessary to protect the environment or improve environmental management.

The Ministry for the Environment carries out many of the statutory functions of the Minister for the Environment under the Resource Management Act 1991. It also monitors the work of the Environmental Risk Management Authority on behalf of the Minister.

Besides the Environment Act 1986 under which it was set up, the Ministry is responsible for the Soil Conservation and Rivers Control Act 1941, the Resource Management Act 1991, the Ozone Layer Protection Act 1996, and the Hazardous Substances and New Organisms Act 1996.

Head Office

Grand Annexe Building 84 Boulcott Street PO Box 10362 Wellington, New Zealand Phone (04) 917 7400, Fax (04) 917 7523 WWW: http://www.mfe.govt.nz

Northern Regions Office

8-10 Whitaker Place PO Box 8270 Auckland Phone (09) 307 7093, Fax (09) 377 9521

South Island Office, Christchurch

Level 3, West Park Towers 56 Cashel Street, PO Box 1345 Christchurch Phone (03) 365 4540, Fax (03) 353 2750

