See Change

Learning and education for sustainability

Background Paper 1:

Summary of interviews

Introduction

This document provides background information for the Parliamentary Commissioner for the Environment's (PCE) report *See Change: Learning and education for sustainability*. It summarises key themes from interviews carried out by PCE staff for this report. Most discussions took place during 'scoping' for the project in 2002 (i.e. before terms of reference for the report were formed) but interviews continued throughout the research and writing phase in 2003.

Approximately 100 people participated in these interviews, either individually or in groups. Participants came from a variety of backgrounds. They included teachers and students in primary and secondary schools, academics, business people, staff in local and central government agencies and Maori individuals. To maintain confidentiality, participants have not been identified in this document. However, all comments have been 'tagged' with an identifying label. These labels are linked to the categories that participants were grouped in during the analysis of interviews. These categories are:

BUS	Business person
CG	Central government agency
LG	Local government agency
MD	Media organisation / agency
NGO	Non-governmental organisation
O	Other
SCH	Schools (primary / secondary)
TER	Tertiary institute (university / polytechnic/ teachers training institutes)

A more detailed key to the labels can be found at the end of this document.

This summary has been arranged in two parts:

- **Part 1** looks at common themes throughout the interviews
- **Part 2** provides a synthesis of key issues by sector.

Despite this division, many of the themes and issues are inter-woven and often overlap.

Please note that the themes and points of view expressed in this document do not necessarily represent the perspectives of the Parliamentary Commissioner for the Environment or his staff.

A note about acronyms: 'EE' is used to refer to environmental education and 'EfS' to education for sustainability. The terms are used loosely in this document (as both terms were used by participants) except where discussion called for a distinction between the two.

PART ONE: Common themes throughout the interviews

'Thou shalt not preach'

Ten people spoke about the need to avoid preaching on environmental issues. Participants commented that educators should "avoid the 'thou shalt not' approach"(CG1) and be non-threatening (LG2, LG7, NGO2, NGO6). As one participant suggested, "preaching tends to get peoples' hackles and defences up…you need to get alongside people and walk down the path with them" (TER6).

It was emphasised that educators should not impose their own views and values (NGO2, SCH4). Instead, it was suggested that they should encourage people to develop their own positions on environmental issues (TER5). Another participant commented that it is important to "let go of *control*…[because] you can only *trigger* the optimum conditions for people to learn" (CG1). Instead of preaching, some participants advocated the need to be more 'subtle', to use more humour (NGO5) and to "speak the language" of an audience carefully in order to better communicate with them (MD2, O4, TER6).

Be empowering and develop responsibility

Participants also highlighted the need to empower people to take responsibility for their own actions (LG7, LG11, LG12, TER9, O2, SCH7, SCH11, TER4, TER6). One person noted that "education is about empowerment – giving people responsibilities – it's then up to them to take things on board or not" (TER6). Similarly, several people suggested "we need to enable people to understand issues so they can make their *own* decisions" (LG7, TER12) and that "education needs to allow students to make decisions for themselves" (SCH11).

Be positive & paint pictures of the possible

A sense of empowerment was sometimes linked with a need to be positive and to give people "bite sized chunks" (LG7, TER4, TER6, TER8). There were comments that "environmental issues can be very depressing and we have to think about how we can do things better" (TER5); a "negative approach – guilt tripping and depressing people and relying on shame – doesn't tend to work very effectively" (TER6); and a "sulky and negative perspective is not the state of mind to be in to face up to environmental pressures" (TER8). One person suggested that "although an adversarial approach can be useful in some circumstances, for the majority we need a more constructive approach" (MD2).

It was therefore suggested that there is a need for lots of positive messages (NGO1, O3, O2, TER7, TER15) and to paint pictures of opportunities for change (CG6, LG10, O2, TER3, TER7). Participants commented that "it is more effective to turn issues into a positive celebration to be proud of" (TER6) and that there is a "need for people to feel that that this is the *good* and *right* thing to do" (TER8).

To assist this process, several people suggested that stories and narratives are very effective devices for encouraging learning (CG2, O8, SCH3) and that educators should use lots of examples and case studies (O2, TER4). To make environmental outcomes achievable, it was also argued that educators need to provide people with

"bite sized chunks" and realistic "stepping stones" for learning and behaviour change (LG1, LG2, LG5, LG9, LG11, NGO6, NGO7, SCH9, TER13, TER15). One person commented that:

> To work out how to solve a series of problems is potentially paralysing [for most people] – to solve "the whole damn thing" is way too big – therefore we need to focus on how to be tangible and empowering – to solve parts of the problem. (TER6)

There was a note of caution, however, that there is still a need for 'big picture' understandings. One person argued that many "EE programmes are part of the *problem* instead of the solution. They lead people to believe that *trivial* actions [such as recycling] are actually effective" when substantial changes are needed for sustainability (TER10). Other participants highlighted a need for balance between small changes (which people can feel good about) and arguments for more substantial social changes (NGO6, TER3).

Be relevant and forge identification

To make outcomes achievable, many participants also stressed the importance of engaging with people to make sustainability issues relevant to their situations (LG1, LG6, LG7, LG8, NGO1, NGO2, NGO7, O2, SCH2, TER3, TER6, TER5, TER8, TER12). People commented that "we need to forge identification with environmental issues" (TER6); "meaningful connections need to be made with practical experience" (TER12); it is important to "encourage people to ask 'what are the implications of what I am doing?'" (TER5); and that "education needs to give us knowledge of *how* to live our lives in the world today" (TER3). Other comments were that:

> It's easy to get managers and directors to see the issues of environmental sustainability – both globally and locally – but there's a real disconnect between those personal understandings and the roles those individual managers play and the impacts of their businesses – especially on a global scale. We need to enable them to see the connections… to understand the relevance for their situation. (TER8)

> We need to personalise the impacts of unsustainable vs. sustainable lifestyles to encourage people to develop an emotional response to our unsustainable lifestyles as well as discussing the benefits of sustainability at an intellectual level. (NGO7)

Participants highlighted the importance of finding different approaches for different people (CG1, CG2) and relating the environment to the everyday lives that people lead (LG7, NGO2). To be more relevant, it was also suggested that people need to see and experience the consequences of their actions more clearly (LG11, NGO6, SCH2).

Consider how issues are framed

Linked with a need to be relevant, it was suggested that to "get into hearts and minds, and to get people actively involved, people need to know 'what's in it for me?'" (LG6, LG2, LG7, NGO2, O3, O7, SCH9, TER8). It was argued that sustainability issues should be framed carefully. Rather than using an 'environmental' frame, people suggested that:

- cost savings can be emphasised and developed through economic incentives (LG1, LG6, LG7, LG2, NGO1)
- health impacts and benefits could be more clearly highlighted (CG5, LG1,LG9, O2, O9)
- employment opportunities should be advocated (O2).

However, instead of just appealing to individual interests (purely directed at the self), one person phrased the question "why should I make the effort?" (SCH9). For example, it was suggested that environmental issues could be pursued by promoting healthy families (O2). Another participant highlighted the importance of appealing to future generations by "asking people 'what kind of world are we going to leave our children?' It's very difficult for people to stand in opposition to this" (TER6).

By framing sustainability issues in such a way, participants suggested that it could prevent people "whinging about 'another conservation issue'" (CG1), and that a "raving greenie" stigma could be overcome (LG1, NGO3). One participant argued that "we need to shift perceptions of environmentalists and make sustainability issues 'funky, sexy, cool'" (BUS1). Several students we spoke with in a Sustainable Futures class mentioned how their peers thought sustainability was a 'greenie' issue that is unimportant (SCH10). However, one person suggested that sustainable development issues had already gone beyond being seen as just "greenie" (SCH8).

Examine values and develop a sense of purpose

Over half the participants noted the importance of developing a sound values base to support environmental sustainability. One person described values as "the essential driver" (TER8). Participants highlighted a need to:

- develop a clear understanding of the values basis for all work (CG3, LG6, LG7)
- critically examine existing values in society and social institutions (BUS1, NGO3, O3, SCH3, TER12)
- challenge and shift people's values (TER8, CG1)
- achieve long-term value changes (LG4, LG5, TER11)
- develop ethical frameworks for business models and governance (TER8)
- enable people to get in touch with their own spirituality (SCH9)
- get back to the basics of life and what makes people truly happy (NGO2).

Many participants also advocated the need for values-based education (CG3, NGO2, O5, SCH6, SCH9, TER6, TER7, TER12). One person commented that it is "absolutely essential to teach values in education for sustainability – with respect for life and for the earth as primary values" (O5). Another participant noted that:

It makes it more easy to start with a values focus because you can then evaluate issues from the solid ground of these values…otherwise there's no yardstick – and people are easily swayed by the great God of the economy. (TER6)

Additional comments were:

It's important to get students [at a tertiary level] to understand their values and the importance of those values – and to realise how the curriculum is politically constructed and linked to ideologies. (TER10)

It's important not to impose your own values. You need people to voluntarily commit to values and to get a sense of ownership. (TER6)

Dominant values in society – based on individualism, self-centredness and consumerism – conflict with sustainability values of caring, spirituality and wider social concern. (NGO6)

People perceive that education is just needed to get a job and earn money to survive. Entrenched values in society make it a slow process for change. (SCH11)

One person suggested that the biggest barrier to sustainability in New Zealand is individualism (O8). Various participants also highlighted the importance of developing a sense of purpose among participants (SCH2, SCH6) and for education itself (TER7). There were comments that "kids are looking for direction more than anything these days" (O2) and "students are hanging out for something positive to jump on…with a sense of purpose and responsibility" (TER6). As one of the students (SCH5) we spoke with suggested, "it's good to be doing something *real*, something that means something."

A significant number of participants (BUS1, BUS2, NGO3, O2, O6, O7, TER12) also commented about the importance of developing 'visions' for sustainability. It was suggested that "if you give people a dream or a vision, people will chase those visions" (BUS1); and "with a bit of vision and good leadership, we have all the opportunities we could ask for" (NGO3).

Emotion is important

Many people highlighted the need to "change hearts and minds" by developing emotional responses (CG2, CG5, NGO7, TER9, SCH2, SCH7, SCH9, TER4, TER6, TER8). As one participant noted, "there's more to the brain than just the cognitive part" (SCH7). Comments included:

There's a need to use advertising that's emotionally based…we need to make things emotional, and cool, and to be media savvy… to make it uncool to be reckless about the future of the planet. (TER6)

Although measuring things is OK, emotional responses are needed. Business people often act only if they <u>have</u> to…but then [environmental issues] are only seen as a market problem to be solved. This has the effect of dragging people into new ways of doing things instead of them <u>wanting</u> to do things. (TER8)

There needs to be an emotional impact – we need to feel something for our learning to be effective – a spiritual component – we need to feel connected to our environment. (CG5)

We need to provide experience to awaken a sense of passion, feelings, some personal connection to the natural environment. (CG2)

However, one person suggested that it is also important to de-stigmatise sustainability issues by taking out the emotional content. They commented on the need to make sustainability seem more legitimate by quantifying issues for some audiences and asking "how do you get movers and shakers to think non-emotionally about sustainability?" (O8).

(Re)connect people with 'nature'

(Re)connecting people to the rest of the natural world was a common theme (CG2, CG3, CG5, LG5, NGO1, NGO2, NGO6, O5, O6, SCH2, SCH3, TER3, TER6). Participants commented that "people are dislocated from nature" (TER6) and there is a "need to have some contact with the natural environment in order to understand issues" (O5). Several participants noted how they tried to foster a sense of wonder in the natural environment among their students, and how easy this is to do with children (CG2, O6). It was also suggested that many people who are interested in environmental issues grew up with a close association to the 'natural' world (O5, TER3).

<u>Urban/rural differences</u>
Participants were asked about any differences they perceived between rural and urban places. There was some consensus that people living in an urban environment are more detached from 'nature' than their rural counterparts (LG6, NGO2, NGO6, O2, SCH2, TER3, TER5). Comments included:

> *In urban schools students don't even understand about the weather, they don't experience it, they don't see the effects of their actions, they don't understand…as the urban population grows, the connections are getting looser. (SCH2)*

> *Children are so removed from their environment with Playstations, computers, urban parks with concrete bottom 'streams' void of life… (TER5)*

Nonetheless, one participant suggested that

> *it's easy to do an effective EE programme even with urban kids, although it might take a bit of lateral thinking…it's also difficult working with traditional farming kids entrenched in their cultures. (CG3)*

Similarly, another person had not experienced many differences between urban and rural students. Instead, they suggested that "differences tend to come down to how well they can integrate relevant national or local environmental issues into their work" (TER11).

<u>Experiential learning</u>
Many people emphasised the importance of education *in* the environment (CG1, CG6, LG8, TER9, NGO3, NGO6, NGO7, O2, O5, O6, SCH4, SCH5, TER5, TER7, TER12). It was suggested that "being out in the environment is effective and important" (NGO3); "kids like active things" (O2); "there need to be opportunities for kinaesthetic learners"(TER5); "good quality experiences in the environment are necessary to forge connections and impart environmental values" (NGO6); and "the experiential side is vital" (CG1). Several teachers highlighted the positive outcomes of doing hands-on work with their students (SCH4, TER7). As one student attested, "being out in the environment made me realise that it's worthwhile" (SCH5).

Develop conceptual understandings

Although some people focused on the emotional aspects of environmental issues, many participants also argued that conceptual understandings need to be better developed. For example, it was suggested that the lack of 'systems thinking' is a

barrier (O7); it is important to develop holistic thinking (NGO7, TER5, TER12); and "we should help people to think instead of just memorising facts" (O2). As one person argued, "we need to show people connections – such as where does milk come from – just a packet?" (NGO2). Several people highlighted the need to focus on the interdependence of social, political, economic and environmental systems and to question notions of social justice and equity (TER6, TER10). It was suggested that:

> *we need to give people understandings of a bigger picture. People do care, but they lack an understanding of their impacts – they don't realise what a difference they can make. (LG7)*

> *It is important to involve people beyond the 'hard' sciences while encouraging involvement of people in these sciences. There is also a need to link biophysical environmental quality more strongly with economic quality. (TER13)*

Some participants also advocated the importance of developing critical thinking abilities (CG3, LG4, O6, SCH11). Comments included:

> *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. (SCH7)*

> *It's difficult to do EE well because if it's done properly it challenges the status quo. It requires reflexivity of one's own personal values. (TER10)*

> *Whenever you have a system built up to perpetuate itself it is difficult to unpick. Do you fight against this system or use its own techniques? (TER13)*

Achieving behavioural change

There was some disagreement about how changes in behaviour can actually be brought about. Thus, while it was argued that "long lasting behavioural change requires knowledge, skills and understanding" (LG9), it was also maintained that "having knowledge and awareness doesn't mean you'll do anything with it" (O4). A fair number of participants had been influenced by Jason Clark (a speaker at the Environmental Education Conference in 2002). They suggested that educators should use social marketing approaches to change behaviours first, and then develop understandings (CG5, LG1, LG6, LG7, LG9,). Linked with this, one participant suggested that the focus should be on "environmental *communication*, not education"; while another commented that "it is not a linear process from awareness, to knowledge, to understanding and action. Action can come first" (LG6).

Nonetheless, some participants also emphasised the lack of awareness in New Zealand about environmental issues, especially with the 'clean green' image of this country (BUS2, O1, O3, TER5, TER13). According to research conducted by one of these people, "New Zealanders expected our environmental performance to be among the world's best but they were *shocked* to discover otherwise. Awareness raising is important" (O1).

Timescales

A variety of people discussed the length of time needed to achieve changes in society. Some people stressed that educational influences take a long time to result in cultural shifts and behaviour change (NGO3, O7). However it was also suggested

that significant gains can often be made quite quickly (LG6). It was noted that attitudes and awareness can shift quite rapidly, but values are much more difficult to move (LG4, LG5).

Although participants emphasised the importance of continuing education efforts over a long time period (LG5, TER9), one person also contrasted this with the short time frames available for research and funding (O2).

Evaluating effectiveness

As one person asked, "how do we know how the things taught to children now impact on broader society? How do we know it's working?" (CG3). Central and local government employees highlighted the tensions between the long time frames needed for social change to take place and the expectations for public agencies to deliver clear outcomes (CG1, CG2, CG4, CG5, CG6, LG6, LG9, LG11, LG12, NGO4). Participants noted how problematic it is to measure 'results' every 6-12 months in order to justify funding (CG1, CG2, CG4, CG6, LG6, NGO4). Some of these evaluation issues were associated with lack of funding and support (see central and local government themes).

Who should environmental education target?

Participants were asked where education efforts could be targeted to achieve the greatest changes in society. There was a huge variety of different responses, and anything but a consensus. Some participants could not highlight any particular sector, while others identified many places to target. Suggestions were in the areas of:

- Primary School (TER9, NGO2, O6, TER7, TER15)
- Secondary School (particularly years 12 and 13) (CG4, O6, TER4)
- Tertiary Institutes (CG4, O6, TER4, TER7)
- Politicians and councillors (CG4, LG2, LG10, O5, O6, SCH6)
- Business sector (CG3, LG6, SCH2, SCH3, SCH6, TER7)
- Local government (CG3, LG2, LG3)
- Farmers (SCH6)

There were suggestions that different short- and long-term approaches should be used (LG5, NGO3, O5, O6, TER7). Short-term targets included politicians (O5, O6); year 12 and 13 students (O6); and tertiary students (O6,TER7).

Longer-term, participants suggested that younger children in schools should be targeted (CG1, NGO2, TER7, TER15). There was also anecdotal evidence that the positive work being done in schools is having an impact on the wider community (through parents and other people in the schools' community) (CG5, LG4, LG6, NGO4, O5, SCH2, SCH3, SCH6, TER3). Some participants, however, suggested that so much environmental work is currently underway in schools that other sectors in society needed attention (CG4, LG6).

Additional comments were that:

> *Target both schools and adults at the same time. Children are very idealistic and do not place practical obstacles in the way like adults do. (LG9)*

We need a building block approach. Giving more attention [to EE] lower down at a primary level gives more scope for deeper learning at higher levels. (SCH4)

We need to instil values in children and then provide adults with info so they can understand what children are going on about. (CG1)

Concentrate on influential individuals

Many participants also suggested that it is important to concentrate on influencing 'leaders' and key individuals (BUS1, CG1, CG2, CG5, LG6, LG7, LG9, LG10, O3, O8, O6, SCH9, TER4, TER7, TER8). Global leaders and role models were criticised for not making the environment a priority (TER5). One person commented that:

There's a real vacuum in leadership at the moment… and an absence of politicians taking the lead on sustainability issues. Perhaps we need to target community leaders to develop strong visions. (LG10)

It was suggested that there is a need for more inspiring role models (CG5, CG6, LG9, O3, SCH9, TER7, TER13). Comments included:

People often base their opinions on the opinions of others – those they respect and see as leaders. We need to guide and influence those individuals. (LG7)

We need to find the leaders for sustainability: 1% of the population as sustainable leaders will be much more powerful than 50% of the population with worm bins and recycling. (O6)

Focus on opinion leaders or opinion formers – people who can assist change. Environmental champions are needed. (TER4)

One person also suggested that it is useful to think about "ripples of ideas" to consider key points of impact (TER8). Linked with this, several participants suggested that it is important to target key individuals in different sectors and communities, and to encourage those people to achieve changes in their respective areas (BUS1, CG1, CG5, LG6, LG7, LG10). One person noted that "each sector needs to focus on their own sphere of influence" (LG10).

Some participants also expanded on their conceptions of what sort of leadership is required. Comments included:

We need leaders to be clear about what they are offering, who don't talk from the grandstands. They need to lead by example and show achievable, realistic things. (TER7)

We need leaders who are designers, coaches, stewards – those who can develop mental models and who are systems thinkers. It's not about leaders who are over the top and just charismatic. They need to be considered and have wisdom – not large and loud. They need breadth of view and openness of mind. (TER8)

We need inspiring leaders – creative, less pedestrian & earnest. (CG5)

Develop relationships & use co-ordinated approaches

Participants also discussed the importance of developing good relationships and coordinating education efforts (CG1, CG5, CG6, LG5, LG6, LG7, LG12, NGO7, O4, TER1). Comments included:

> *We need to co-ordinate efforts among public agencies… to deliver coherent messages...to share patches and build trust. (CG1)*

> *There need to be co-ordinated media strategies in place – you tend to get one go at it – like superannuation which was mishandled and had a boring image…if you don't do it right issues often can't go back on the agenda for another 5 years. (TER6)*

> *In the past we've struggled with the lack of a consistent, co-ordinated approach. All the government agencies in the Auckland region confused the hell out of people. Now [the Regional Council] will only support coordinated programmes. (LG5)*

> *There needs to be one person talking to business rather than ECCA talking about energy, Zero Waste about waste... We need to cover waste, energy, transport, water, purchasing and so on through one liaison person. (O4)*

One participant suggested that there is a real "disconnect" between central and local government efforts, with a lack of downwards integration (LG10). There were also comments about a need for integration of existing education efforts, to provide more support and a consistency of direction (LG6, LG7).

Cultural differences

A variety of participants also discussed the impacts of different cultural influences in New Zealand. For example, it was suggested that many Europeans coming to New Zealand, especially Germans, are much more environmentally aware and concerned than many New Zealanders (CG6, O3, TER5). One person commented that "they come to New Zealand for the good environment and can't believe the situation here…they have strong messages and know what's important…" (TER5). In contrast, it was suggested that many people coming from urban environments in countries in Asia tend to be more detached from the New Zealand environment (CG1, CG2, CG5, TER5). Thus, there were comments that "just trying to get many people from Asia to think about the natural environment is very difficult – they are so far removed" (TER5) and "there's a fundamental lack of understanding among the Chinese community [in Auckland], with limited connections to the natural environment" (CG2).

The changing cultural composition in New Zealand, especially in Auckland, was discussed with several participants (CG1, CG2, CG4, CG5). One person commented that "the Auckland scene is very complex … there are different values, perceptions, and degrees of environmental awareness among immigrants and local-borns…we have to somehow reach across those audiences" (CG2). Participants highlighted the need to understand cultural differences and to use a variety of different approaches for different people (CG1, CG2, CG5, TER1).

It was also suggested that the 'New Zealand ethos' was still dominated by a residual pioneering spirit based on 'conquering nature' and risk taking (TER14). Meanwhile, a few participants emphasised that cultural sustainability needs to be a key

consideration in any discussion on sustainability (CG1, CG5,). Existing eurocentric conservation models were critiqued (CG1, CG5, NGO5) and various people highlighted the importance of achieving better engagement between Maori and Pakeha cultures (CG1, CG5, NGO2, NGO5).

Look at NZ in a global context

The importance of examining global perspectives were also emphasised by a variety of participants. It was suggested that New Zealand's relationship to the rest of world needs to be considered when concentrating on local and regional issues (CG5, MD1, NGO3, O5, TER3, TER6, TER8, TER13). However, it was also noted that people sometimes feel overwhelmed by the magnitude of global impacts (CG5, TER6). Within New Zealand, some participants also emphasised the importance of taking regional differences into consideration in a national context (LG5, LG6, LG7).

Other issues

Additional areas raised by participants included:

- *Consider equity issues* – Several people highlighted the importance of considering social justice and equity issues and extreme misdistributions of wealth in any discussion on the environment and sustainability (TER6, TER10). One person also suggested that sustainable development had been captured by the environmental movement in New Zealand, whereas the social justice movement had taken a much stronger role in countries such as Scotland and France (O8).
- *Provide legislative backup* – Several participants also stressed that, despite the importance of education, it is also necessary to develop legislative safeguards and to introduce more economic incentives to promote sustainability (BUS2, LG12, NGO3, NGO7, O3, TER4, TER14).

PART TWO: Analysis by sector

Central government themes

There were three key themes in the central government area (listed in decreasing order of prominence):

- *Leadership* – Many participants (CG3, LG5, O4, O5, O7, SCH9, TER2, TER3, TER12) emphasised the importance of more leadership from Government. They suggested that a major commitment in this area needs to be made (O7); that there should be a sustainable development strategy and action plan to co-ordinate efforts (CG3, LG1); and that central government needs to provide direction for local government, while allowing local authorities to make issues relevant to their regions (LG5). It was suggested that "Government has taken people on an anti drink-driving and anti-smoking journey, but not any environmentally related one" (LG5).

- *Co-ordination* – As noted in the business section below, there was a strong message that government departments need to work together to provide a "one stop shop" of coherent messages for business people and others in the community (LG5, LG12, O4, TER12). This was also recognised by members of several central government agencies (CG4, CG6).

- *Relationships* – Various people from a central government agency commented about a shift in focus from putting efforts into producing resource kits to building up relationships with key people in the community "to be in there for the long haul" (CG1, CG5).

In addition, various people highlighted difficulties with evaluating the effectiveness of education programmes. This was linked to problems with gaining a commitment to funding (see key themes section). Some people suggested that funding for education initiatives is often very precarious in government agencies (CG1, CG6, LG3, O7).

Local government themes

There were also three key themes at a local government level:

- *Lack of support from Councillors* – participants suggested that many Councillors do not see EE as important. This is because short-term economic imperatives often pre-dominate (LG2, LG3, LG6, TER3); it is difficult to evaluate the success of programs in short time frames to justify expenditure (LG6, LG9); and EE might impinge on Councillors other priorities (LG2, LG9). As one person noted, "Councillors often see EE as a discretionary activity instead of a core activity – it is nice but not essential. It's seen as an 'add on'" (LG6).

- *Security of funding* – linked with the lack of support, these participants were often concerned about a lack of secure funding for their programmes. One person suggested that EE was "like a ball being hit around by a bat", as it is always under threat (LG6). Another comment was that:

    Security of funding is always a problem. We got almost no funding in the last annual plan. Although we eventually got re-allocated some funding, this was

substantially less than previously. The perception among councillors is that EE is not a priority (LG3).

- *Increasing support* – despite these criticisms, some participants suggested that there has been some increase in support in many councils over recent years (LG1, LG6, LG12). This has been evident through an increased recruitment of EE officers. However, there was also a critique that the dominant focus of EE had just been on schools (LG11, LG12).

A couple of people also highlighted the new Local Government Act as an opportunity to generate greater understanding of sustainability issues at a local level (LG3, CG4). These people also supported the idea of providing education for councillors on sustainability issues (LG3, CG4). A group of people also commented that "community members need to be involve in 'real' decision making, and not merely lip service." (NGO7).

School themes

The environment in the curriculum

Many participants commented on the ways that education for sustainability (EfS) could fit into the existing school curriculum. There was some consensus that it should not be taught as a separate subject, and that it should be promoted in a cross curricula way (CG3, LG8, NGO7, SCH1, SCH3, SCH6, TER12, TER15). Several people suggested that the literacy strand provided a useful model to implement EfS into schools (SCH3, SCH7).

Participants were asked whether they thought EfS should be made compulsory in the curriculum. Most people were in favour of this proposal (LG1, SCH1, SCH7, TER5, TER10, TER15, O7), with comments that:

- there are some great resources, but no requirement to use them (SCH7).
- teachers will not teach EfS unless they have to (LG1)
- it is generally up to enthusiastic teachers and individual Boards of Trustees to determine whether EfS is taught (TER10)
- maths, reading and English are regarded as essential learning areas for human welfare, and sustainability should be just as essential (SCH1)
- it is difficult to equip teachers with an understanding of EfS at Colleges of Education, because these institutes focus on preparing their students for areas that are in the curriculum (TER10)
- until something it is mandated it is difficult to get buy-in, but even if it was mandated there would still be a danger that EE would only be taught *well* by dedicated enthusiasts (TER15).

Participants that were less supportive of making EfS compulsory were mostly concerned about how it would be implemented. Thus, it was suggested that "making things compulsory would go a long way, but forcing things through as curriculum requirements often meets resistance" (SCH3). There were concerns that EfS could be taught badly without proper support (SCH6). Nonetheless, it was suggested that "for EE *not* to be mandated, it would be necessary to help teachers see how they can teach it" (TER11). It was suggested that implementation of EfS could be modelled on the technology strand, with a comprehensive package of new resources and training (SCH7, TER12).

Some people were concerned that the curriculum is already over-crowded, and that some subjects would need to be dropped if EfS became compulsory (NGO1, SCH1, SCH3, TER11). Alternatively, it was suggested that EfS could be "clearly associated with existing subjects, so that it would not be seen as something extra to be taught" (SCH7). One person suggested that the social studies and science curricula could be re-vamped and replaced with "society and the environment" and "science and the environment" (CG3). One person also disagreed that the curriculum is over-crowded. They suggested that schools spend too much time on extra-curricula activities and that some of this time could be used for EfS (TER10).

In the meantime, it was suggested that EE is "patchy" and mostly being driven by passionate teachers (CG3, SCH6, SCH10, TER12). Despite these issues, several people commented about how easy they found it to achieve learning outcomes by teaching *through* environmental issues (NGO4, SCH4, SCH6, TER11, TER12). As one person commented, "I love the success it brings…sustainability issues cover so many curriculum areas and essential skills" (SCH6).

The EE Guidelines
Participants who had used the EE guidelines generally found them useful (SCH6, TER11). Nonetheless, there was some criticism that "they should have been written with more consultation and pilot work" (SCH6) and that they are simply a "watered down version of the Tblisi declaration" (TER10). People who were positive about the guidelines also highlighted a lack of awareness about their existence, and an associated lack of uptake, partly because of they way they were distributed to schools (NGO4, SCH7, TER11).

Resourcing and support
There were many comments about the need for further resourcing and professional development for teachers (CG3, LG1, LG4, NGO1, NGO3, NGO7, SCH2, SCH3, SCH6, SCH7, SCH9, SCH10, TER3, TER5, TER10, TER12). Some participants were positive about the role of the new EE coordinators to address these issues, although there was some concern that the coordinators may not have had sufficient training (LG4). It was suggested that there are already good resources available for teachers, but that busy schedules (SCH2, SCH3) and a lack of enthusiasm among some teachers (SCH2, SCH9) may limit their use. Several participants suggested that further professional development is needed in EE (SCH1, SCH2, SCH3, SCH4, TER12). One person, however, highlighted that more money is available for professional development than is currently being used (SCH3).

Differences between primary and secondary schools
There were conflicting perspectives about differences in teaching EE in primary and secondary schools. Most people suggested that it is easier to teach at a primary level because:

- primary schools are more holistic, smaller, and have more staff communication (LG8)
- secondary schools suffer from inertia and 'silos' (LG8); they are departmentalised and less integrated (LG1); and thinking among teachers (beyond their traditional disciplines) is more difficult to shift (CG3, SCH3).

Nonetheless, one secondary school geography teacher argued that "there's no difference between doing EE in primary or secondary schools – it's just as easy here" (SCH4). Another participant suggested that it is great to do EE at intermediate schools, "pushing boundaries out, and learning about the adult world… EE helps students see how they fit into the world" (LG1).

In addition, it was suggested that the introduction of the National Certificate of Educational Achievement may create opportunities for developing more integrated programmes across schools (SCH2, SCH10, SCH11) although there are unresolved issues with measuring achievement standards (TER12).

Patch protection
A variety of participants suggested that there is a considerable degree of 'patch protection' among traditional disciplines in secondary schools that needs to be overcome (CG3, NGO7, SCH3, SCH4, SCH8, SCH10, SCH11, TER2, TER12). As one person noted, this is because sustainability is such a holistic concept, and it is fundamental to look at interactions between subjects (TER11). Another person commented that:

> It is vital to deconstruct notions of <u>ownership</u> to encourage teachers to cooperate more and to reflect on and learn from each others experiences. They need to let go of controlling their disciplines to be able to change. It is vital to build up partnerships and share knowledge. You cannot deliver EE using traditional processes. (TER12)

Talking about their own experiences, participants suggested that:

- a member of the science department thought geography staff had "stolen" their ideas (SCH4)
- teachers attitudes can be a major barrier because they get 'mana' from being the school 'expert' in their fields (SCH3)
- many teachers question the relevance of sustainability, and believe it is not a 'real' subject area (SCH10)
- science teachers often have a protectionist attitude, upholding science as a value-free Mecca (SCH2, SCH8)
- technology teachers have hardly ever been taught about social and environmental impacts of the things they are teaching – they think teaching is just about 'value free' skills (TER10)
- secondary teachers need their heads shifted out of traditional disciplines and approaches – they are very encased in their academic upbringing & past practices (SCH8)
- educators are afraid of passing over control to learners and allowing them to be involved in decision-making. (NGO7)

One person suggested that education for sustainability needs to be driven by an independent person and not subject specialists. On the positive side, it was noted that the new technology curriculum shows that teachers from different disciplines can work together to create a collective course of action (SCH7).

Other

Additional comments were that:

- there needs to be a policy and a written commitment for EfS in schools' charters (LG8)
- the Ministry of Education is currently looking at strategic planning with schools, so this could be an opportunity to address EfS issues (LG1)
- sustainability issues are difficult to implement in the education system because they are politically contentious. This is because "done well, EE is about better education but it also rocks the boat" (TER10)
- transformative approaches in education need to be pursued, as "education serves society as well as confining it" – education needs to allow people to fit into a society but to enable them to challenge it as well (TER12).
- it is difficult to teach about sustainability when teaching has been broken down into many measurable elements. Education has been cut into many small pieces, but learning is about making connections (TER11)
- education needs to be less mechanistic and more student-centred (TER12), and educators need to let go of control (SCH11)
- children who experience EE at school are hitting 'roadblocks' as they become adults, as there are problems with wider dissemination of education efforts (NGO6).

Tertiary themes

There were not many issues raised specific to this sector, although we did speak with a variety of participants working in tertiary institutes. Discussions with these people tended to inform the general discussion and the section on business themes. For example, most people (TER9, TER2, TER4, TER5, TER6, TER8) spoke about the need to start with a strong values base with their students; to use a facilitative teaching style; to avoid 'preaching'; and to "walk [their] students down the road" (TER6) to allow them to make their own judgements and conclusions.

In addition, as one academic argued, "the recognition of the *need* for sustainability perspectives is still on the fringes" in most institutions (TER8). Another person commented that "there is a perception amongst academic teaching staff that sustainability is 'wishy-washy', unnecessary, and a fringe topic" (TER14). Various people suggested that gaps in the tertiary sector should be examined (O3, O7), with one person suggesting that a liberal education is needed before people enter subject specialisations (O6). One participant also emphasised the need for learning institutes to "practice what they preach" in the environmental area (TER9).

> *Please note: Themes from tertiary teachers training institutions have been listed under 'school themes'.*

Business themes

Most of the people who talked about businesses were generally critical of resistance in this sector (BUS1, BUS2, TER2, TER4, TER8). Participants criticised the prevailing focus on compliance (just meeting legal requirements) (TER2, TER8); the appropriation of sustainability issues in their "weakest form" (re-presenting environmental issues as an 'add-on' to the core functions of business) (TER2,

TER4); and a short-term mindset that dominates business culture (BUS2, TER6). Nonetheless, participants emphasised the need to address business practices because of the enormous impacts that they have on the environment (TER1, TER8). Another person commented that "most people in business probably want to live in a society that is sustainable – labelling people as goodies and baddies is a brick-wall approach" (TER15).

<u>Business models</u>

There were various perspectives on the degree of changes needed in the business sector. Some people suggested that underlying business models (which are often geared towards short-term profit maximisation) do not need to change much, and what is needed is a shift in values (BUS1, O6, O7). One participant argued that the primary focus should be on "avoiding short term initiatives to pump up economic growth at a long term expense" (O1). Other people noted "major tensions" between many business models and the goals of sustainability (BUS2, O5, TER2). Several people suggested that these models need to be fundamentally re-examined, looking at "how *power* is deployed in organisations" (TER2); to prevent "privatising profits and socialising losses"; and to question the links with consumerism (fostering needs and wants) (BUS2, TER4, TER6).

Although it was argued that there is a need for educators to "show business that you can save money by reducing resource use" (TER5), some participants suggested that "you can pick low-hanging fruit", but in the long term there will need to be more fundamental changes (TER4, TER8). It was suggested that "businesses *don't* have 'the' answer" (TER4, TER6), but that some of their models can be useful (e.g. dialogue with stakeholders, taking a values focus, and promoting longer time horizons). It was therefore argued that businesses are "part of the picture but not the whole story" (TER4).

<u>How can changes be achieved?</u>

To improve the environmental performance of businesses, participants suggested that there should be a focus on:

- fostering the support of business leaders to get changes within their community (LG5, O4)
- moving businesses by moving their *markets* – to get at business people through the general public (LG5)
- working with the biggest business players to get significant changes (TER1)
- using the tools of marketing to challenge unsustainable business practices (BUS1)
- improving business ethics and stakeholder theory (TER8).

Participants spoke about business cultures and values, and the need to "shift the dreams" (BUS1) of business people – to shape how they operate, and to "use *emotional* responses…so that business people *want* to do things (instead of applying a negative approach)" (TER8). The existing focus on triple bottom line reporting was criticised as "chancy" (TER1, TER2, TER8) and it was argued that more effort should be placed on changing business values.

Within businesses, participants suggested that the targets for change should be:

- leaders within the business community (LG5)
- senior managers to ensure that resources and funding is made available to environmental efforts in organisations (O4)
- directors of companies who "ignore anything other than the balance sheet" (O6).

However, one person suggested that fundamental changes are not likely to come from within the business community (TER6). Another participant noted how "vulnerable" it is to get changes driven by individuals when the business world is so often affected by take-overs and restructuring (TER2). It was also argued that it is important to use proactive regulations and policies to ensure that businesses improve their environmental performance (LG5).

In terms of the relationship between businesses and the public sector, one participant felt that government agencies often "come in and talk to business but they are often ignored and marginalised" (BUS1). There was a strong message that government departments need to work together to provide a "one stop shop" of coherent messages for business people (LG5, O4).

Tangata whenua themes

We only spoke with a few people (LG10, O2, O9) about specific issues relevant to tangata whenua for our project. Two of these people raised concerns about access to matauranga Maori, but also noted the value of this knowledge and the benefits it can bring for communities. One person (O2) emphasised the importance of hapu development for many Maori people and the need to make things relevant to the context and needs of each community. They noted that there are also many opportunities for tangata whenua to help other New Zealanders learn to become more sustainable.

Another person (LG10) noted a need to address *cultural* sustainability (while recognising that Pakeha culture also needs to be examined). They suggested that there should be a focus on increasing responsibility; looking at whose values are most influential; and bringing back an emphasis on metaphysical elements that are often not discussed. They suggested that the term 'sustainable development' was not appropriate for many tangata whenua who already think creatively, with strong visions, and in interconnected ways.

In addition, participants suggested that:

- *cultural sustainability* needs to be a starting point – to preserve cultural attitudes towards sustainability (CG1)
- it is important to question eurocentric models and develop greater understanding of Maori values and perspectives and the wealth of matauranga Maori (CG5)
- there needs to be more engagement with Maori to examine what it means to be involved with the New Zealand environment (NGO2)
- te reo (Maori langauage) concepts need to be considered (such as hauora – health and wellbeing; and aku matua – learning / education) (O9)
- it may be more effective to target health or economic issues for many Maori first, instead of just focusing on purely environmental issues (O9).

NGOs

Although we talked with a variety of NGO's and community groups (which informed our key themes), we did not canvass the specific role that this sector could have. It seemed to us, however, that NGO's had a much stronger focus on environmental education (relying on somewhat 'traditional' approaches) than education for sustainability (broader in scope).

Media themes

There tended to be a lot of criticism about the influence of the media and the lack of adequate coverage of sustainability issues. There were comments that "children are educated by the media far more than in schools" (NGO6, O5); the "media is programming our selves" (TER6); "the biggest opponent to sustainable development is the media" (TER14); and "the news media maintain the myth that by maintaining market share we're all better off" (TER10). In particular, the dearth of coverage of environment and development issues on television was criticised (CG5, O7). It was suggested that New Zealand had "lead the way in dumbing down television during the last two decades…sustainable development issues are not as available on TV here as in other countries" (MD1).

Advertising, marketing and consumption
Participants also raised serious concerns about the impacts of advertising and the marketing industry that use the media (MD2, NGO6, O3, O5, O7, TER6). There were comments that "human weaknesses are fostered and exploited very effectively by marketing and advertising" (MD2); and "advertising creates unrealistic wants and not needs…[although] this is a fairly recent phenomena" (O5). One person suggested that "90% of existing advertising needs to be removed to stop the stimulation of desire for things that are not really wanted" (TER6). Another participant, however, suggested that "people are advertised out… [and] have become quite switched off advertising" (LG1). Nonetheless, they suggested that people have become more susceptible to 'greenwashing'. Other people argued that there is a "need to foster consumer awareness and power…. advertising needs to be turned around" (SCH2). It was suggested that stricter guidelines are needed for advertising on television, especially during children's programmes (LG8). Wider issues of consumerism were also brought into question, (LG6, LG8, NGO1, TER6). One person commented about the development of shopping as a leisure activity, and asked "how do you get to the people who go to the Warehouse on the weekend for something to do?" (NGO1). Others highlighted a need to challenge the "prevalence of societal attitudes which reward unsustainable consumerism – for example, enhanced social status from owning more material possessions" (NGO7).

Use the media for change
In addition to this critique, many participants also highlighted how the media could be used to achieve positive changes in society. It was suggested that the media can be used as a forum to raise awareness (LG12, NGO7, MD1, O4); marketing techniques can be used as an effective tool to educate and shift values (BUS1, SCH7); and that a major marketing effort "is required for a paradigm shift… to reconstruct social values" (MD2). It was also suggested that television programmes can stimulate the introduction of resource materials into schools, and that the new TVNZ charter could provide some opportunity for positive changes (MD1).

It was also argued, however, that although marketing approaches can be useful for spreading information, they need to be *personalised* to embed changes (TER8). It was noted that less ad-hoc campaigns are needed to make them work (LG7).

Key to labels

Label	Organisation / position
BUS1	Business person
BUS2	Business person
CG1	Central Government environmental agency
CG2	Central Government environmental agency
CG3	Central Government education agency
CG4	Central Government environmental agency (4 people)
CG5	Central Government environmental agency
CG6	Central Government environmental agency
LG1	District Council
LG2	City Council (2 people)
LG3	City Council (2 people)
LG4	Regional Council
LG5	Regional Council
LG6	Regional Council
LG7	City Council
LG8	Unitary Authority
LG9	Unitary Authority
LG10	City Council
LG11	Regional Council (3 people)
LG12	City Council (2 people)
MD1	Media NGO (2 people)
MD2	Advertising / media agency
NGO1	Environmental NGO (2 people)
NGO2	Environmental NGO
NGO3	Environmental NGO
NGO4	Environmental NGO
NGO5	Environmental education NGO
NGO6	Environmental education NGO (11 people)
NGO7	Environmental education NGO (10 people)
O1	Research institute
O2	Research institute
O3	Architect
O4	Sustainability consultant
O5	Retired biology / permaculture educator
O6	Retired professor of business management / BOT chairperson (2 people)
O7	Environmental NGO / researcher
O8	Research institute
O9	Research institute / academic
SCH1	Social studies teacher and education consultant (2 people)
SCH2	Secondary school science co-ordinator
SCH3	Secondary school technology advisor
SCH4	Secondary school geography teacher
SCH5	Student / marine educator
SCH6	Intermediate school teacher
SCH7	Secondary school headmaster
SCH8	Secondary school science teacher

SCH9   Primary school teacher
SCH10   Secondary school teachers (2) and class of students
SCH11   Environmental education schools co-ordinator
TER1   Lecturers in environmental science and fisheries mgmt (2 people)
TER2   Lecturer / researcher in management school
TER3   Lecturer / tutor in horticulture
TER4   Lecturer / researcher in management school
TER5   Lecturer / researcher in management school
TER6   Lecturer / researcher in management school
TER7   Lecturer / researcher in environmental studies
TER8   Lecturer / researcher in management school
TER9   Lecturer / researcher in agriculture
TER10   Lecturer in teachers training college
TER11   Lecturer in teachers training college
TER12   Lecturer in teachers training college
TER13   Lecturer / researcher in resource management
TER14   Lecturers / researchers in environmental studies (2 people)
TER15   Lecturer in teachers training college